

DEPARTMENT OF VETERANS AFFAIRS

WILLIAM S. MIDDLETON VA HOSPITAL 2500 OVERLOOK TERRACE MADISON, WISCONSIN 53705 CONSTRUCT PHARMACY CACHE

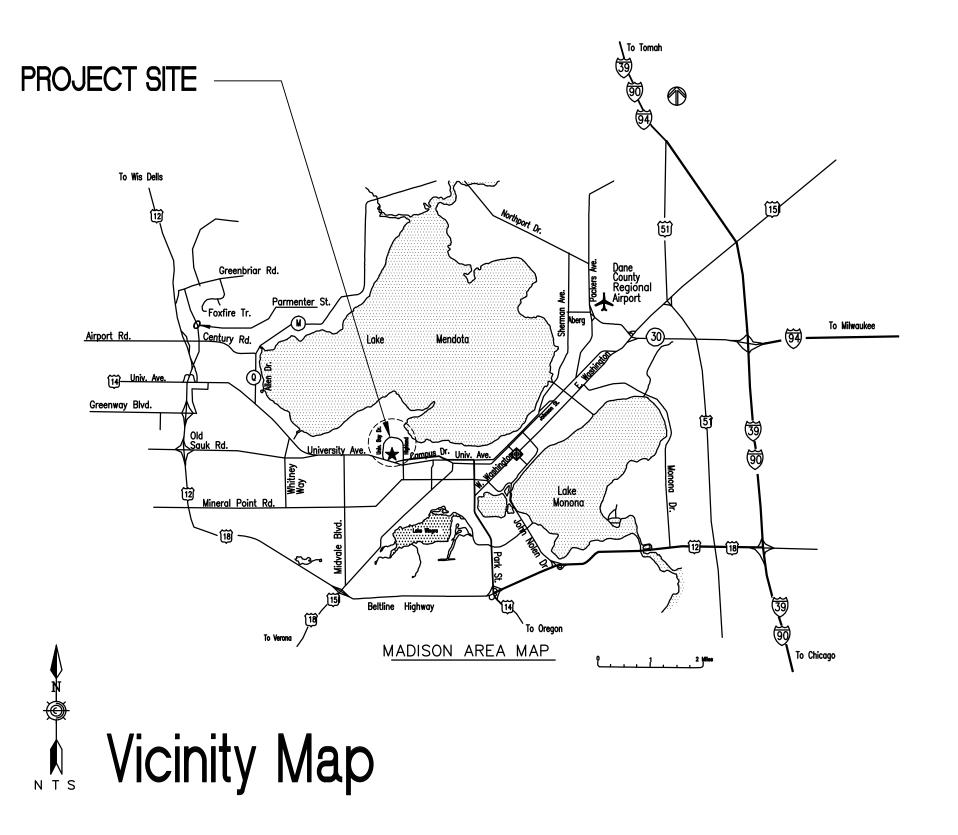
VA PROJECT NUMBER 607-13-101 IDG PROJECT NUMBER 121002

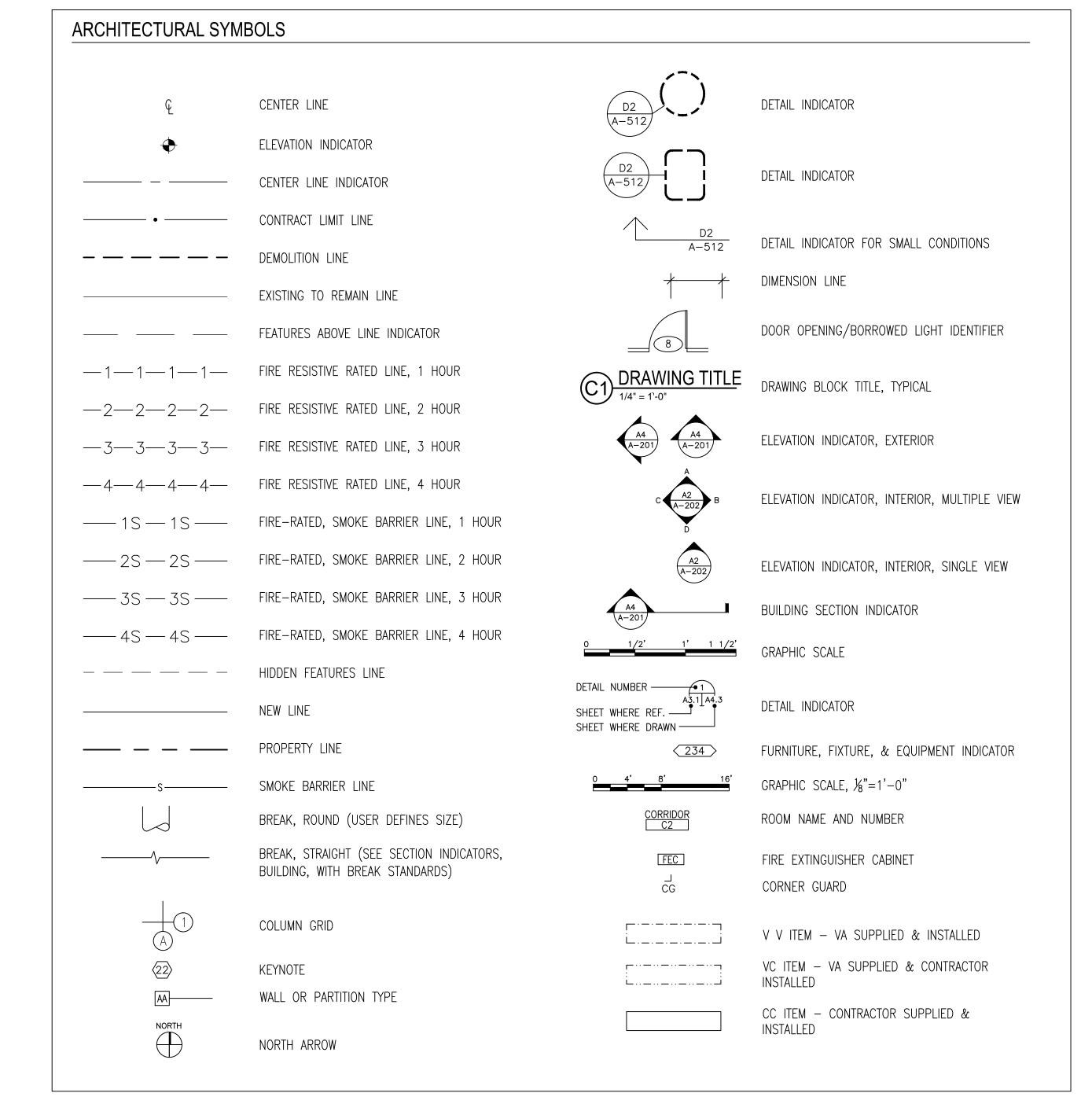




one eighth inch = one foot

0 4 8 16





FIRE RATINGS

SHAFTS

BEARING WALLS & COLUMNS

TRUSSES, GIRDERS, BEAMS

FLOOR CONSTRUCTION

ROOF CONSTRUCTION

AREA SQUARE FOOTAGE

IN HOURS

RENOVATION AREA

1783 SF

MATER	RIALS LEGEND			
4 4 4 '4	CONCRETE	EXISTING CONSTRUCTION TO REMAIN		RIGID INSULATION
	EARTH	EXISTING CONSTRUCTION TO BE REMOVED	XXXXXX	BATT INSULATION
	BASE COURSE	NEW CONSTRUCTION		

BUILDING INFORMATION

GROUND FLOOR 1BC, NFPA 101: LATEST ADDITION OCCUPANCY: IBC S-1 MODERATE HAZARD STORAGE CLASS OF CONSTRUCTION: IBC 2B NON-COMBUSTIBLE (CONSTRUCTED AS 1A) BUILDING FULLY SPRINKLERED

	SHEET INDEX
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H100	ASBESTOS ABATEMENT PLAN — GROUND FLOOR
C100	EXISTING SITE AND EROSION CONTROL PLAN
C200	DEMOLITION PLAN
C300	SITE LAYOUT AND GRADING PLAN
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A111	BUILDING SECTIONS — DEMOLITION AND NOTES
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A501	EXTERIOR WALL SECTIONS
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A601	PLAN DETAILS AND WALL TYPES
S001	GENERAL NOTES
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S500	FOUNDATION DETAILS
S505	MASONRY DETAILS
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S511	STEEL DETAILS
P001	PLUMBING PLANS, GENERAL NOTES, LEGENDS AND SCHEDULES
M001	MECHANICAL GENERAL NOTES, LEGENDS, CONTROL DIAGRAM AND POINTS.
M002	MECHANICAL SCHEDULES, ROOF PLAN AND COMMUNICATIONS WIRING
M100	MECHANICAL PLANS
	MECHANICAL DETAILS
M200	
M200 M201	MECHANICAL DETAILS
	MECHANICAL DETAILS ELECTRICAL GENERAL NOTES, LEGENDS, AND SCHEDULES
M201	
M201 E001	ELECTRICAL GENERAL NOTES, LEGENDS, AND SCHEDULES

NAME OF PROJECT:	MIDDLETON VA HOSP	ITAL - PHARMACY CAC	HE	
ADDRESS:	2500 OVERLOOK TER	RACE MADISON, WISC	ONSIN 53705	
PROPOSED USE:	STORAGE: PHARMAC	Y CACHE		
OWNER OR AUTHORIZED AGENT:	DEPARTMENT OF VET	ERANS AFFAIRS		
OWNED BY:	FEDERAL			
CODE ENFORCEMENT JURISDICTION:	VA			
DESIGN RESPONSIBILITY		1		
DISCIPLINE	FIRM	NAME	LICENSE NUMBER	TELEPHONE
ARCHITECTURAL	NAGEL ARCHITECTS	GREG NAGEL	A-9635	262-641-0746
INTERIOR DESIGN				
CIVIL	GRAEF	EDWARD PREMO	E-41079	608-242-1550
STRUCTURAL	GRAEF	BRYANT STEMPSKI	E-37299	608-242-1550
PLUMBING	IBC ENGINEERING	LEV ZVENYACH	E-25627	262-549-1190
MECHANICAL	IBC ENGINEERING	LEV ZVENYACH	E-25627	262-549-1190
ELECTRICAL	IBC ENGINEERING	LEV ZVENYACH	E-25627	262-549-1190

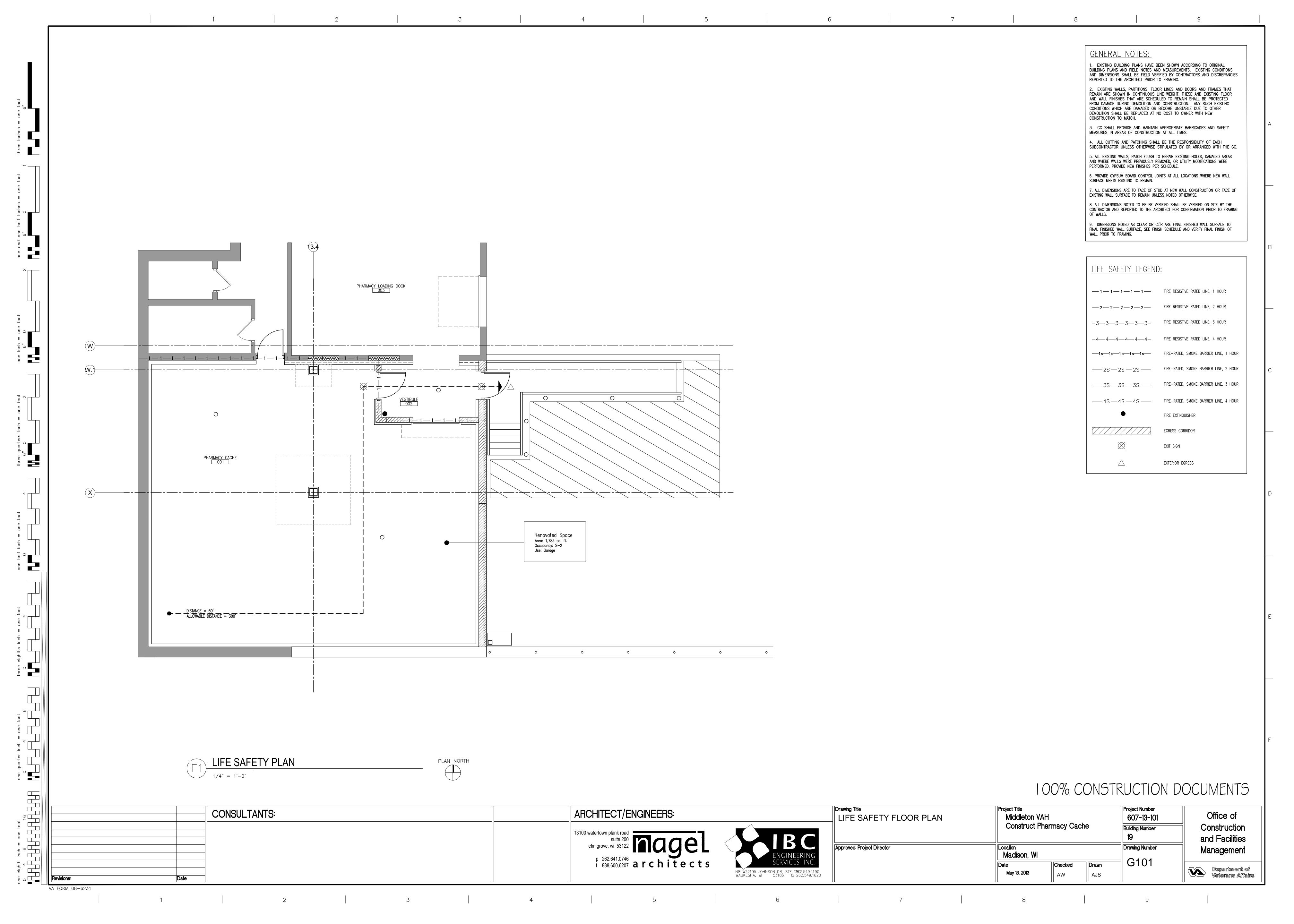
Approved: Chief of Construction, FM Approved: VA Project Engineer Approved: Office Manager

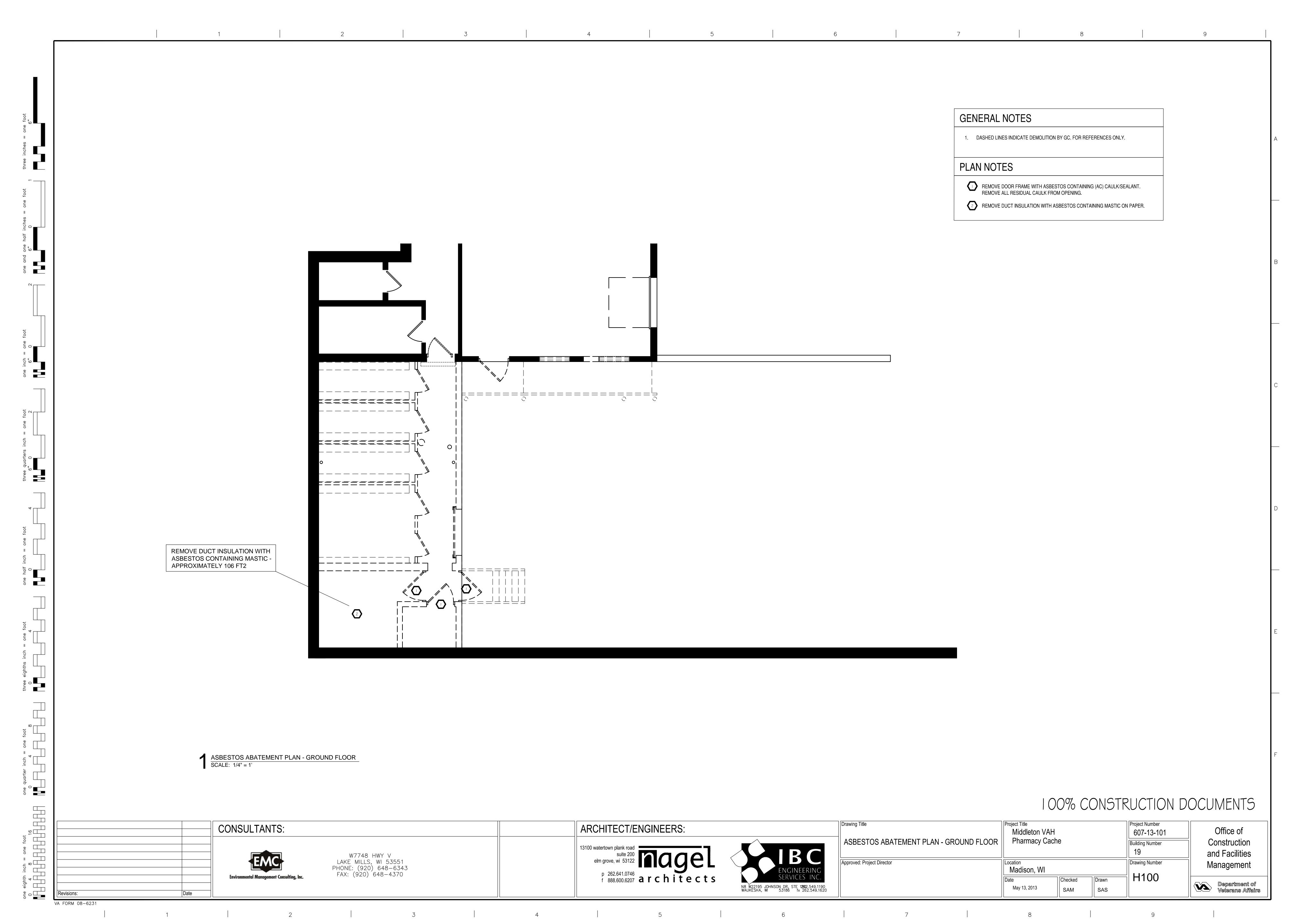
Approved: Architect / Engineer

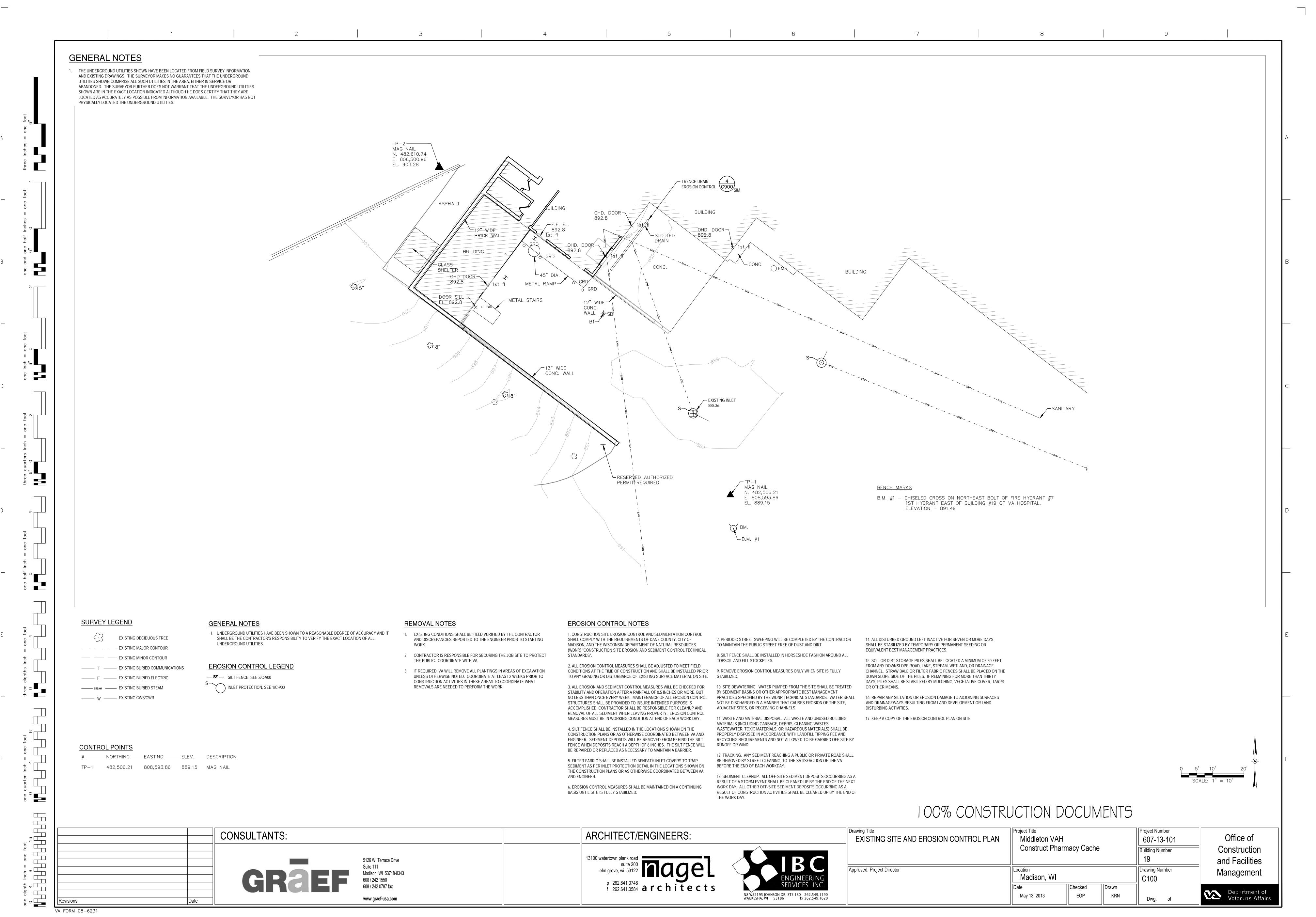
100% CONSTRUCTION DOCUMENTS

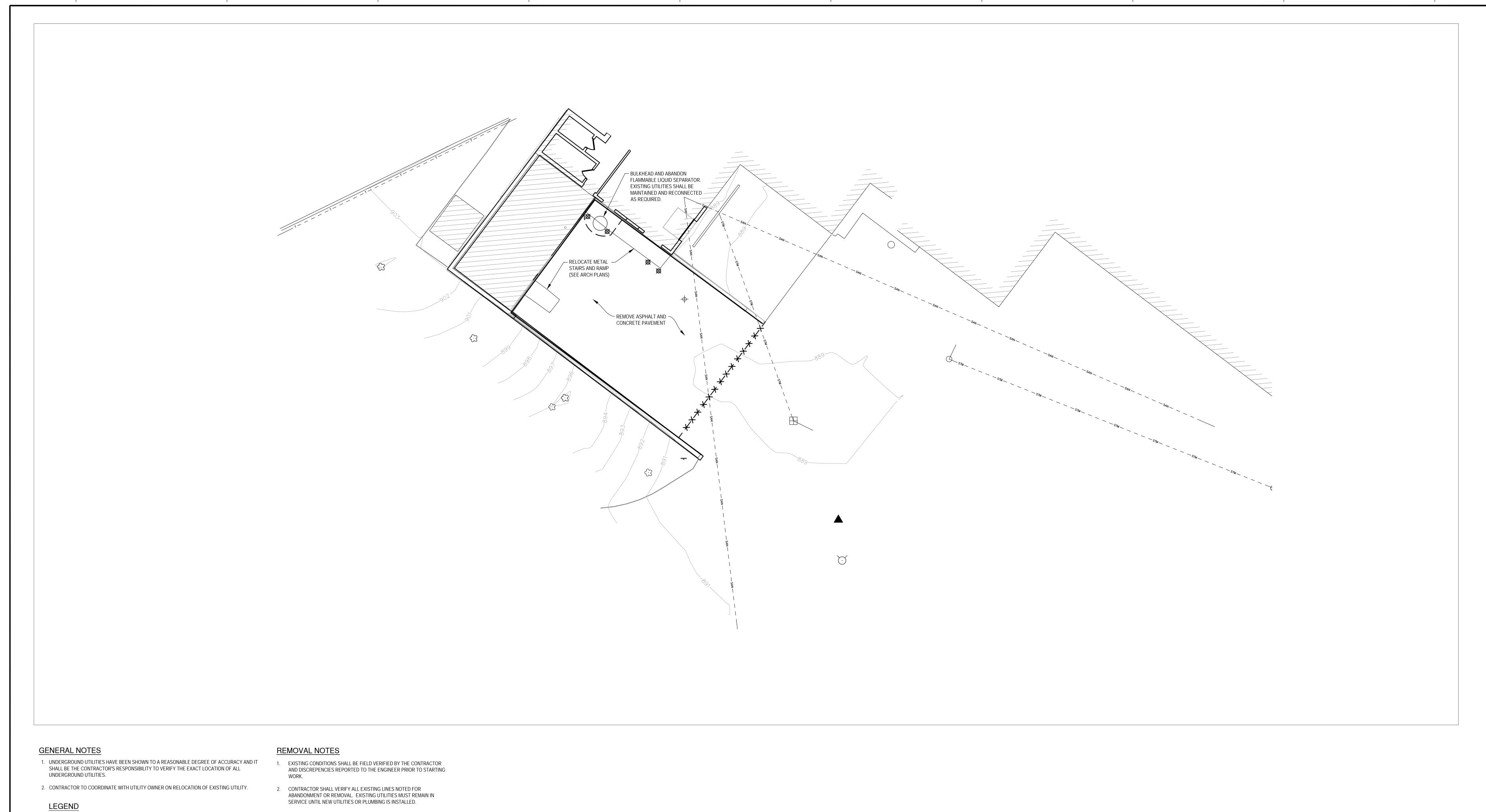
Drawing Title Project Title

Middleton VAH Project Number ARCHITECT/ENGINEERS: CONSULTANTS: Office of **COVER SHEET** 607-13-101 Construct Pharmacy Cache ABBREVIATIONS AND SYMBOLS Construction Building Number and Facilities Approved: Project Director Drawing Number Location Management Madison, WI G100 f 888.600.6207 architects Drawn Checked Department of Veterans Affairs May 13, 2013 SAM SAS VA FORM 08-6231





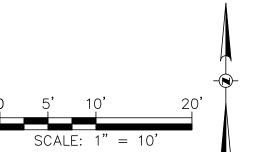




REMOVE EXISTING SIDEWALK

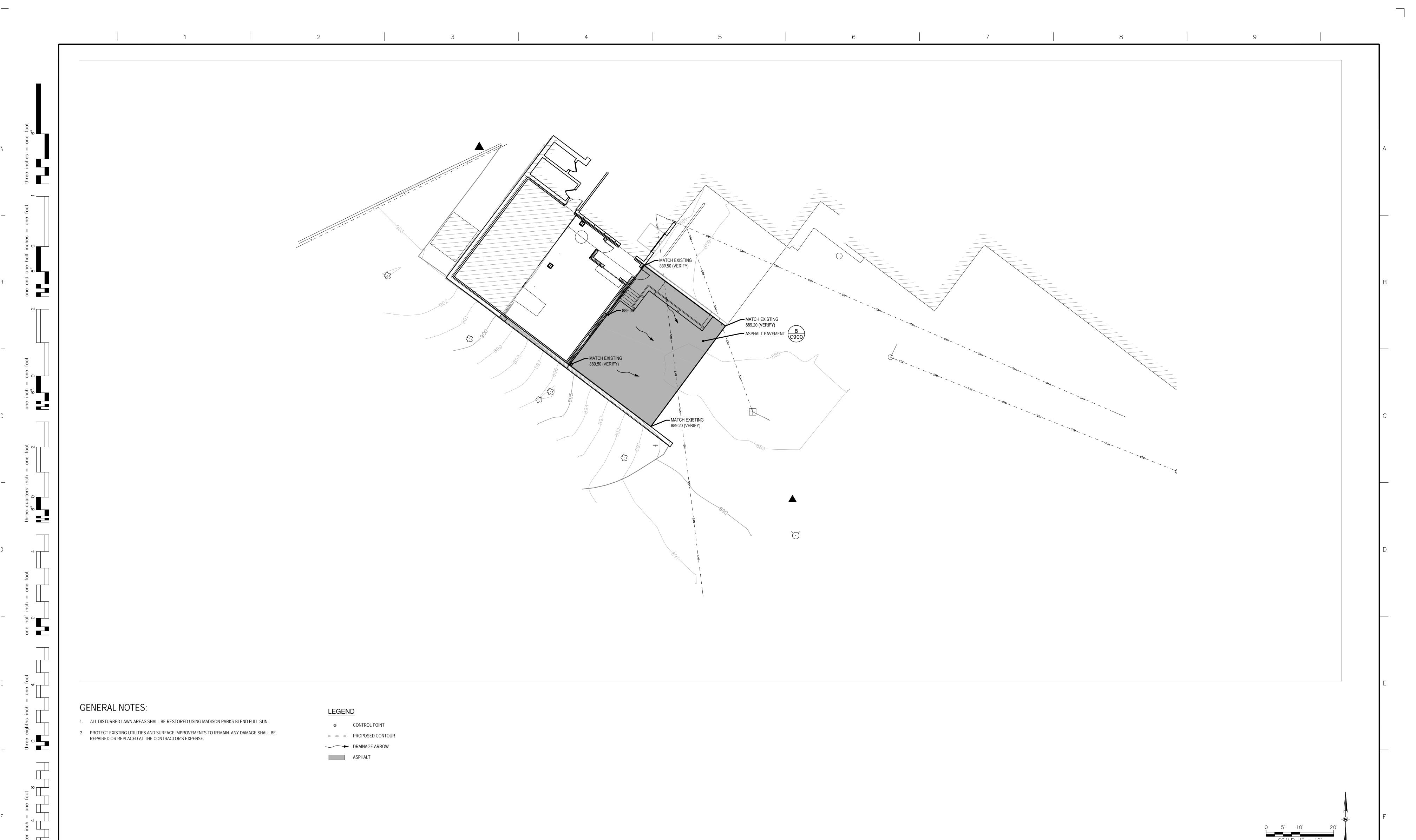
🗙 🗶 🗶 SAWCUT REMOVE BOLLARD

- 3. CONTRACTOR IS RESPONSIBLE FOR SECURING THE JOB SITE TO PROTECT THE PUBLIC. COORDINATE WITH OWNER OPERATIONS.
- 4. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH LOCAL ORDINANCES FOR DUST CONTROL. COORDINATE WITH VA.
- 5. CONTRACTOR RESPONSIBLE TO SALVAGE EXISTING ONSITE BASE COURSE TO PROVIDE ENOUGH FOR USE IN GRADING AND RESHAPING UNDER NEW ASPHALT AREA.



100% CONSTRUCTION DOCUMENTS

				100% C	CNSTRUCTION DOCUMENTS)	
9	CONSULTANTS:		ARCHITECT/ENGINEERS:	Drawing Title DEMOLITION PLAN	Project Title Middleton VAH	Project Number 607-13-101	Office of
one foot		5126 W. Terrace Drive	13100 watertown plank road suite 200 elm grove, wi 53122		Construct Pharmacy Cache	Building Number 19	Construction and Facilities
ith inch = 4	GRa	Suite 111 Madison, WI 53718-8343 608 / 242 1550 608 / 242 0787 fax	suite 200 elm grove, wi 53122 INCIGEL p 262.641.0746 f 262.641.0584 a r c h i t e c t s ENGINEERIN SERVICES IN		Location Madison, WI Date Checked Drawn	Drawing Number C200	Management
one eigh	Revisions: Date	www.graef-usa.com	f 262.641.0584 d l CITTLE CLS N8 W22195 JOHNSON DR, STE 180 262.549 WAUKESHA, WI 53186 fx 262.549		May 13, 2013 EGP KRN	Dwg. of	Department of Veterans Affairs

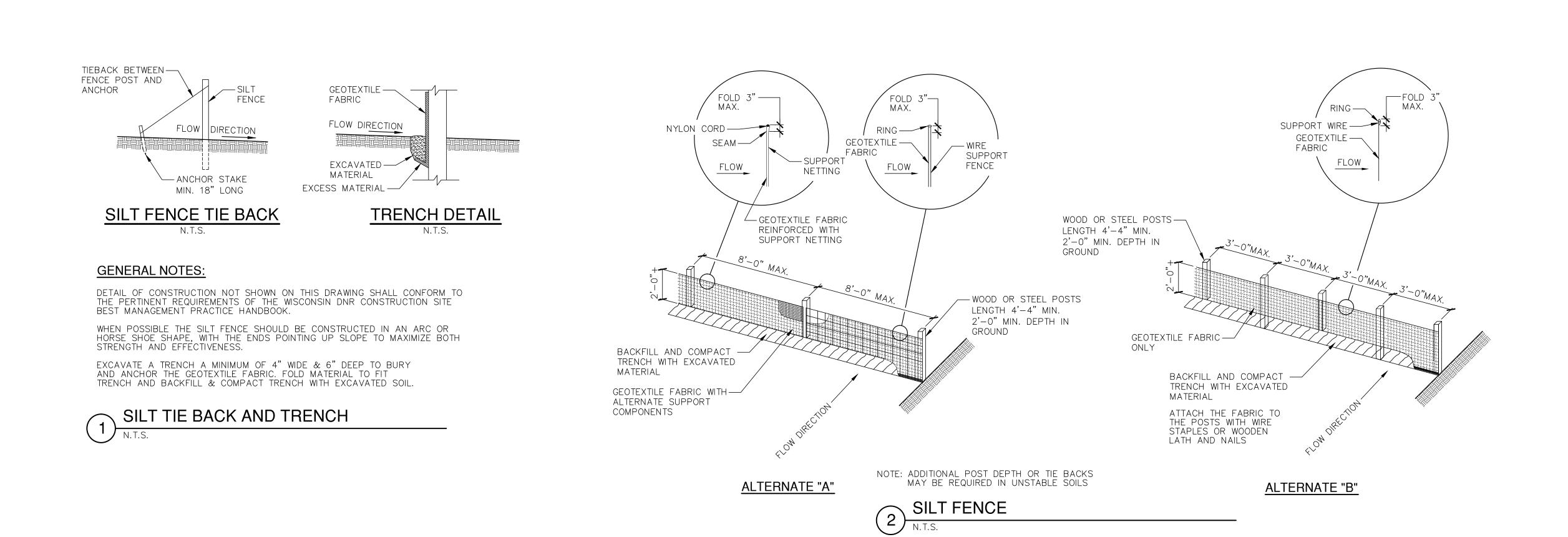


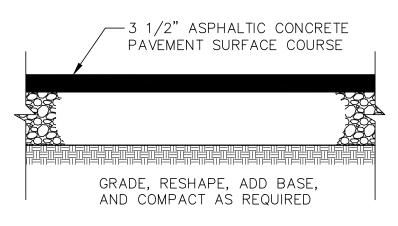
100% CONSTRUCTION DOCUMENTS

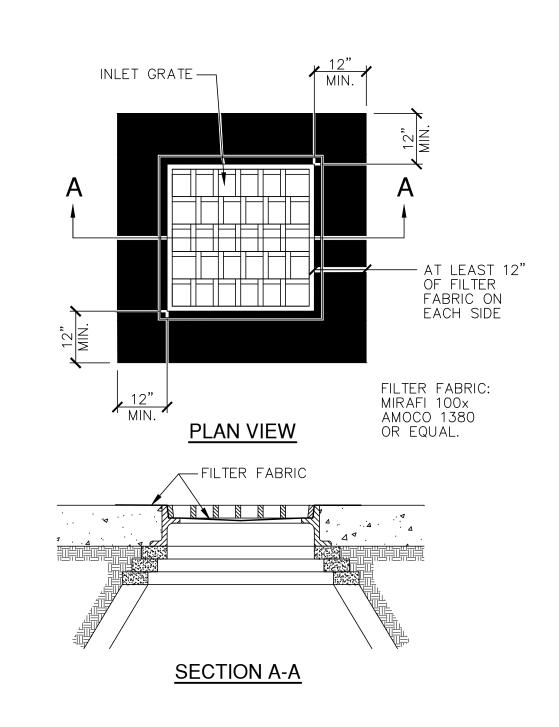
Drawing Title
SITE LAYOUT AND GRADING PLAN Project Title
Middleton VAH Project Number 607-13-101 CONSULTANTS: ARCHITECT/ENGINEERS: Office of Construct Pharmacy Cache Construction Building Number 5126 W. Terrace Drive Suite 111 Madison, WI 53718-8343 608 / 242 1550 608 / 242 0787 fax and Facilities suite 200
elm grove, wi 53122

p 262.641.0746
f 262.641.0584

a r c h i t e c t s Approved: Project Director Location Madison, WI Drawing Number Management C300 Drawn Checked Department of Veterans Affairs N8 W22195 JOHNSON DR, STE 180 262.549.1190 WAUKESHA, WI 53186 fx 262.549.1620 May 13, 2013 EGP KRN www.graef-usa.com Dwg. of

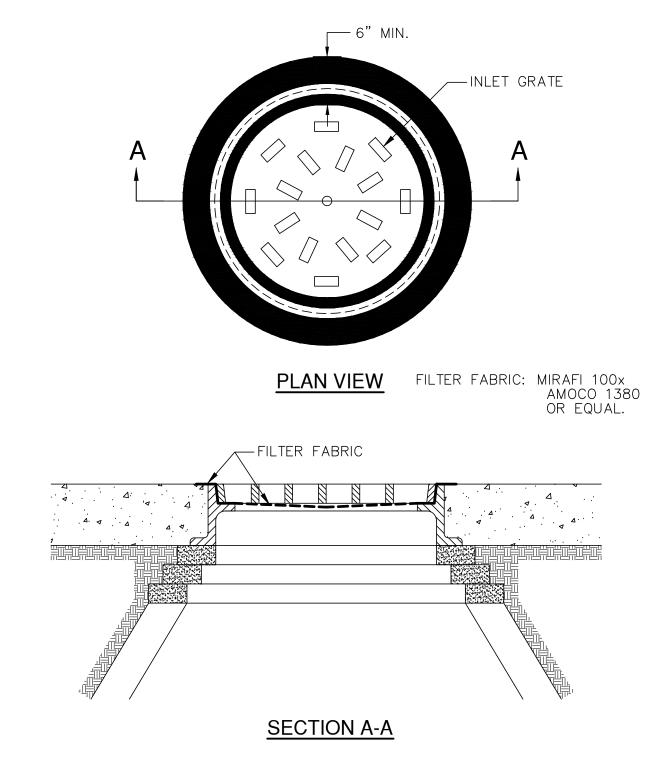






INLET GRATE SCREEN - SQUARE/RECTANGULAR

N.T.S.



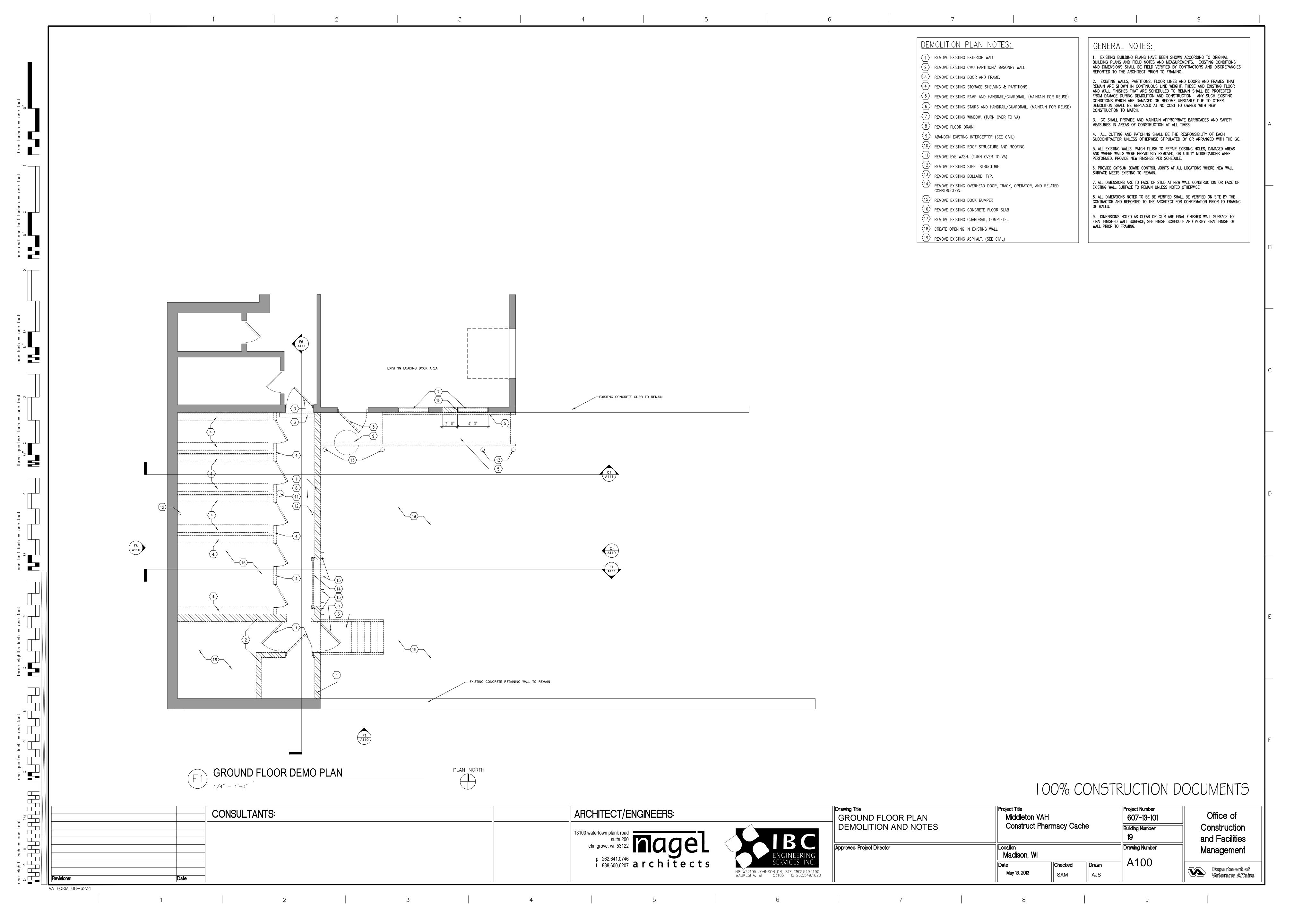
5 INLET GRATE SCREEN - ROUND

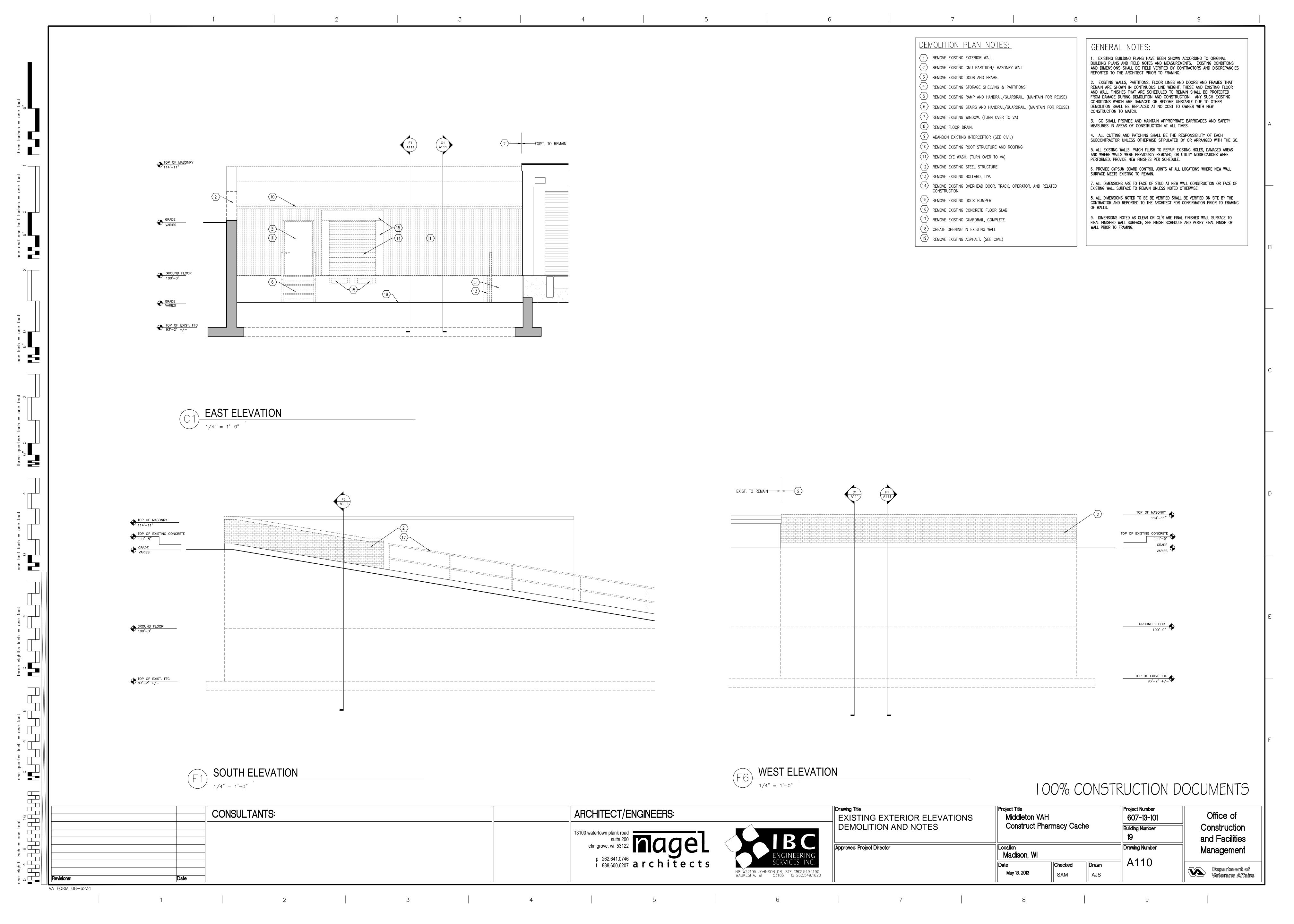
100% CONSTRUCTION DOCUMENTS

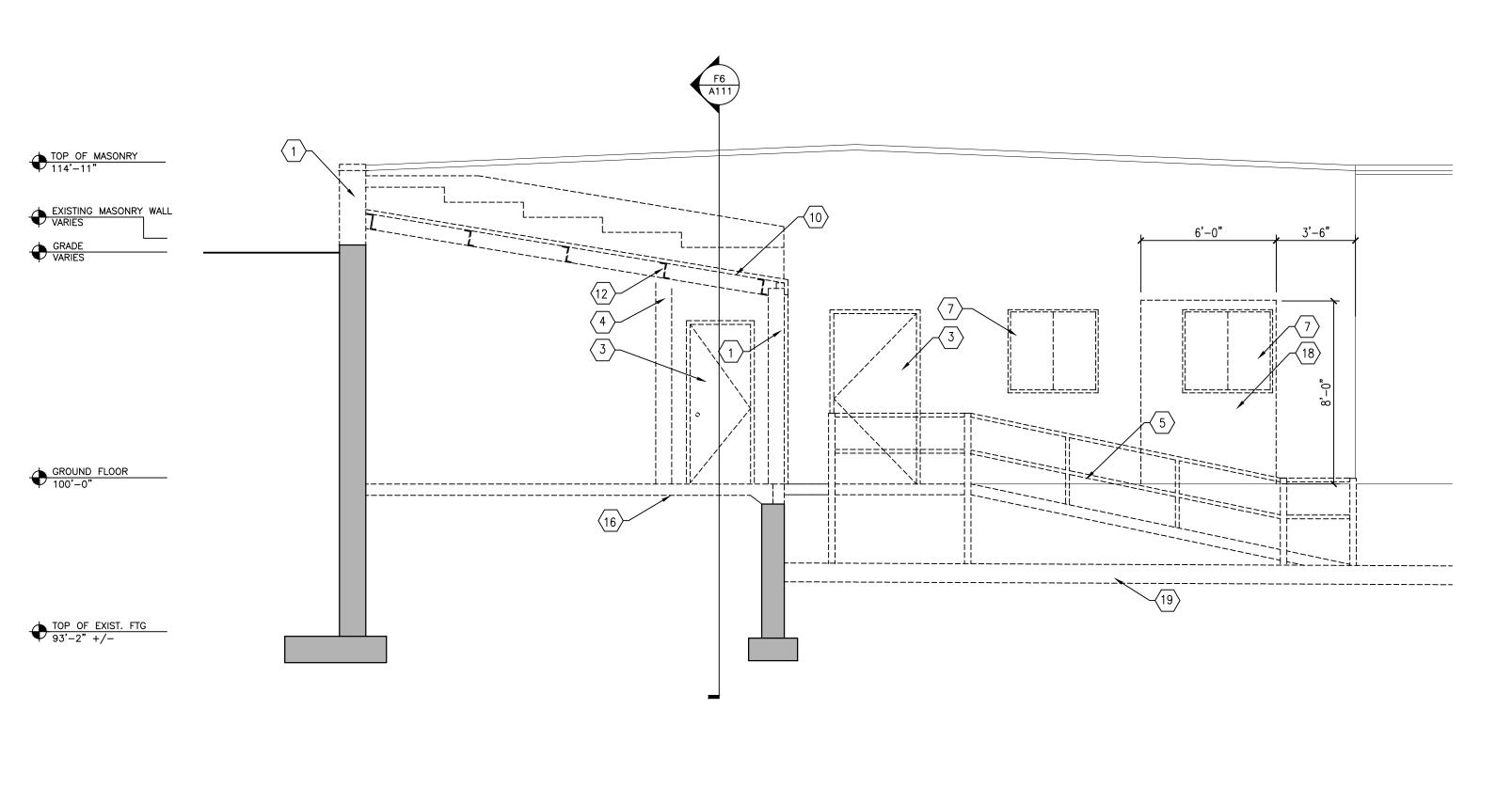
one eighth inch = one foot

0 4 8 16 Drawing Title
SITE CONSTRUCTION DETAILS Project Title

Middleton VAH Project Number ARCHITECT/ENGINEERS: CONSULTANTS: Office of 607-13-101 Construct Pharmacy Cache Construction Building Number and Facilities 5126 W. Terrace Drive Approved: Project Director Drawing Number Location Management Madison, WI 53718-8343 Madison, WI C900 608 / 242 1550 608 / 242 0787 fax p 262.641.0746 f 262.641.0584 architects Drawn Checked Department of Veterans Affairs N8 W22195 JOHNSON DR, STE 180 262.549.1190 WAUKESHA, WI 53186 fx 262.549.1620 May 13, 2013 EGP KRN Dwg. of www.graef-usa.com







DEMOLITION PLAN NOTES:

1 REMOVE EXISTING EXTERIOR WALL

(2) REMOVE EXISTING CMU PARTITION/ MASONRY WALL

(3) REMOVE EXISTING DOOR AND FRAME.

4 REMOVE EXISTING STORAGE SHELVING & PARTITIONS.

5 REMOVE EXISTING RAMP AND HANDRAIL/GUARDRAIL. (MAINTAIN FOR REUSE)

6 REMOVE EXISTING STAIRS AND HANDRAIL/GUARDRAIL. (MAINTAIN FOR REUSE)

 $\overline{7}$ REMOVE EXISTING WINDOW. (TURN OVER TO VA)

 $\langle 8 \rangle$ REMOVE FLOOR DRAIN.

9 REMOVE EXISTING MANHOLE STRUCTURE (SEE CIVIL) (10) REMOVE EXISTING ROOF STRUCTURE AND ROOFING

11 REMOVE EYE WASH. (TURN OVER TO VA)

 $\langle 12 \rangle$ REMOVE EXISTING STEEL STRUCTURE

(13) REMOVE EXISTING BOLLARD, TYP. (14) REMOVE EXISTING OVERHEAD DOOR, TRACK, OPERATOR, AND RELATED

CONSTRUCTION. 15 REMOVE EXISTING DOCK BUMPER

(16) REMOVE EXISTING CONCRETE FLOOR SLAB

(17) REMOVE EXISTING GUARDRAIL, COMPLETE.

18 SAW CUT EXISTING MASONRY WALL. PROVIDE LINTEL AS REQUIRED.

 $\langle 19 \rangle$ REMOVE EXISTING ASPHALT. (SEE CIVIL)

GENERAL NOTES:

1. EXISTING BUILDING PLANS HAVE BEEN SHOWN ACCORDING TO ORIGINAL BUILDING PLANS AND FIELD NOTES AND MEASUREMENTS. EXISTING CONDITIONS AND DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTORS AND DISCREPANCIES REPORTED TO THE ARCHITECT PRIOR TO FRAMING.

2. EXISTING WALLS, PARTITIONS, FLOOR LINES AND DOORS AND FRAMES THAT REMAIN ARE SHOWN IN CONTINUOUS LINE WEIGHT. THESE AND EXISTING FLOOR AND WALL FINISHES THAT ARE SCHEDULED TO REMAIN SHALL BE PROTECTED FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. ANY SUCH EXISTING CONDITIONS WHICH ARE DAMAGED OR BECOME UNSTABLE DUE TO OTHER DEMOLITION SHALL BE REPLACED AT NO COST TO OWNER WITH NEW CONSTRUCTION TO MATCH.

3. GC SHALL PROVIDE AND MAINTAIN APPROPRIATE BARRICADES AND SAFETY MEASURES IN AREAS OF CONSTRUCTION AT ALL TIMES.

4. ALL CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF EACH SUBCONTRACTOR UNLESS OTHERWISE STIPULATED BY OR ARRANGED WITH THE GC. 5. ALL EXISTING WALLS, PATCH FLUSH TO REPAIR EXISTING HOLES, DAMAGED AREAS

AND WHERE WALLS WERE PREVIOUSLY REMOVED, OR UTILITY MODIFICATIONS WERE

PERFORMED. PROVIDE NEW FINISHES PER SCHEDULE.

6. PROVIDE GYPSUM BOARD CONTROL JOINTS AT ALL LOCATIONS WHERE NEW WALL SURFACE MEETS EXISTING TO REMAIN.

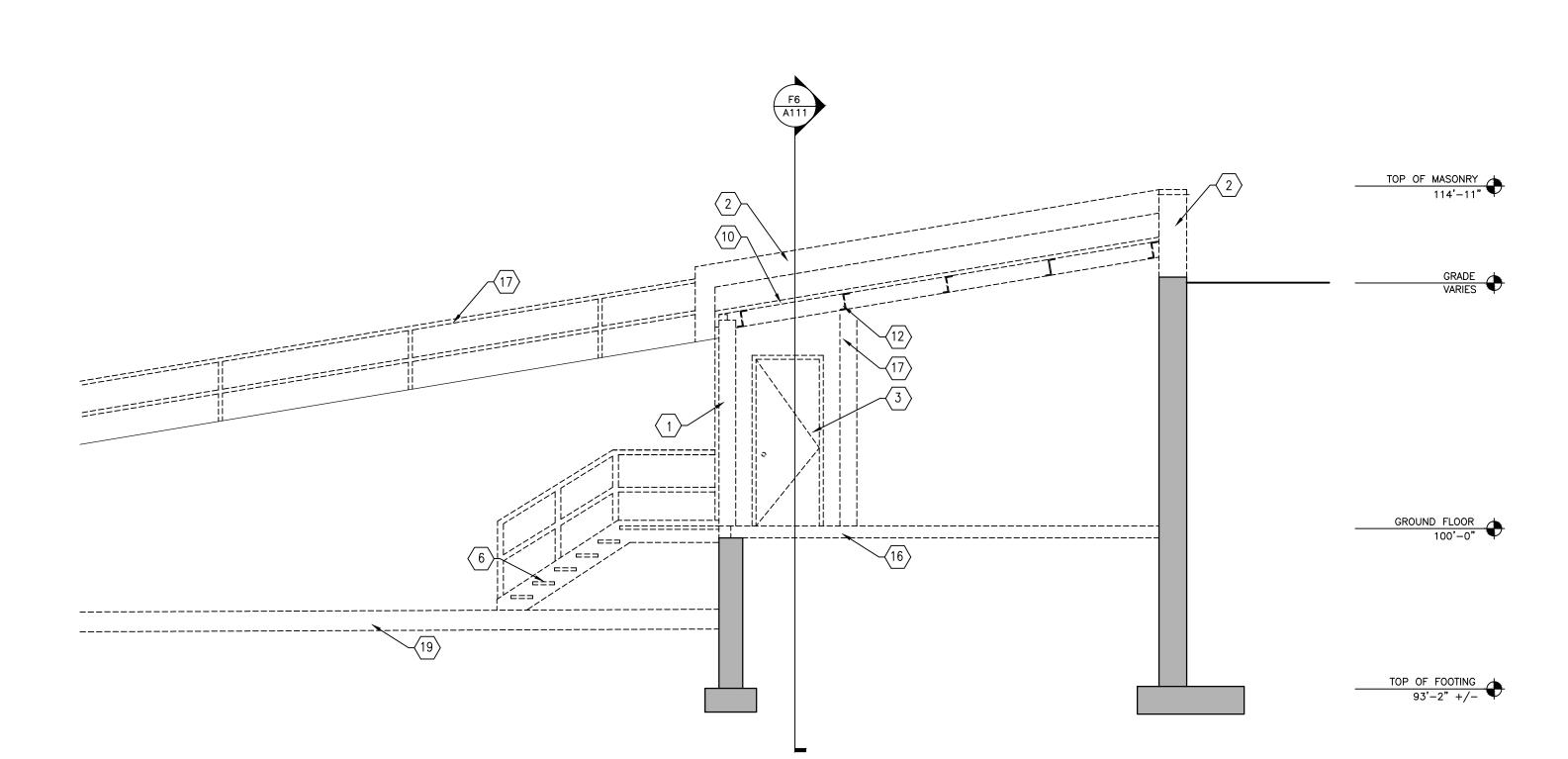
7. ALL DIMENSIONS ARE TO FACE OF STUD AT NEW WALL CONSTRUCTION OR FACE OF EXISTING WALL SURFACE TO REMAIN UNLESS NOTED OTHERWISE.

8. ALL DIMENSIONS NOTED TO BE BE VERIFIED SHALL BE VERIFIED ON SITE BY THE

CONTRACTOR AND REPORTED TO THE ARCHITECT FOR CONFIRMATION PRIOR TO FRAMING

9. DIMENSIONS NOTED AS CLEAR OR CL'R ARE FINAL FINISHED WALL SURFACE TO FINAL FINISHED WALL SURFACE, SEE FINISH SCHEDULE AND VERIFY FINAL FINISH OF WALL PRIOR TO FRAMING.

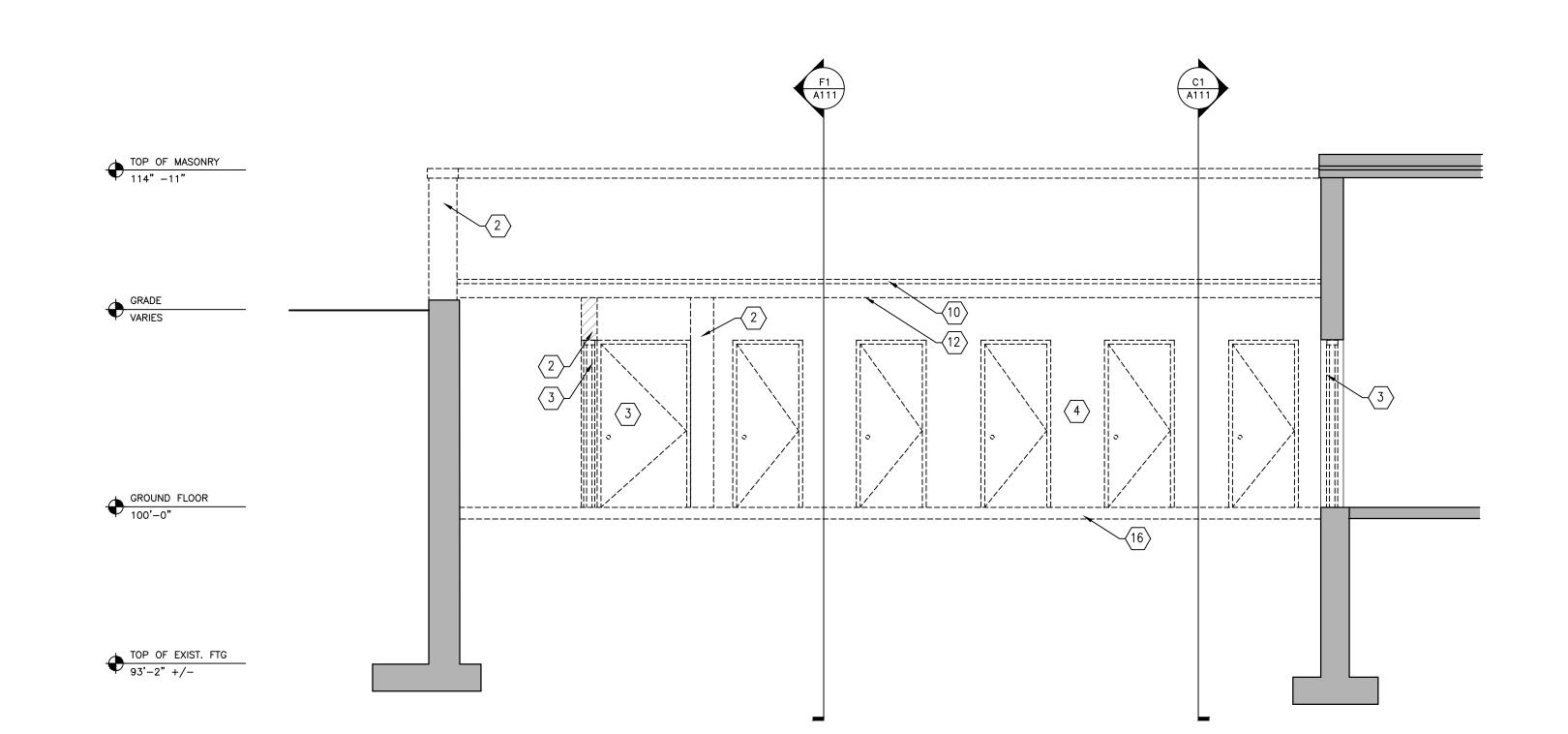
EXISTING BUILDING SECTION LOOKING NORTH



EXISTING BUILDING SECTION LOOKING SOUTH 1/4" = 1'-0"

one eighth inch = one foot

0 4 8 16



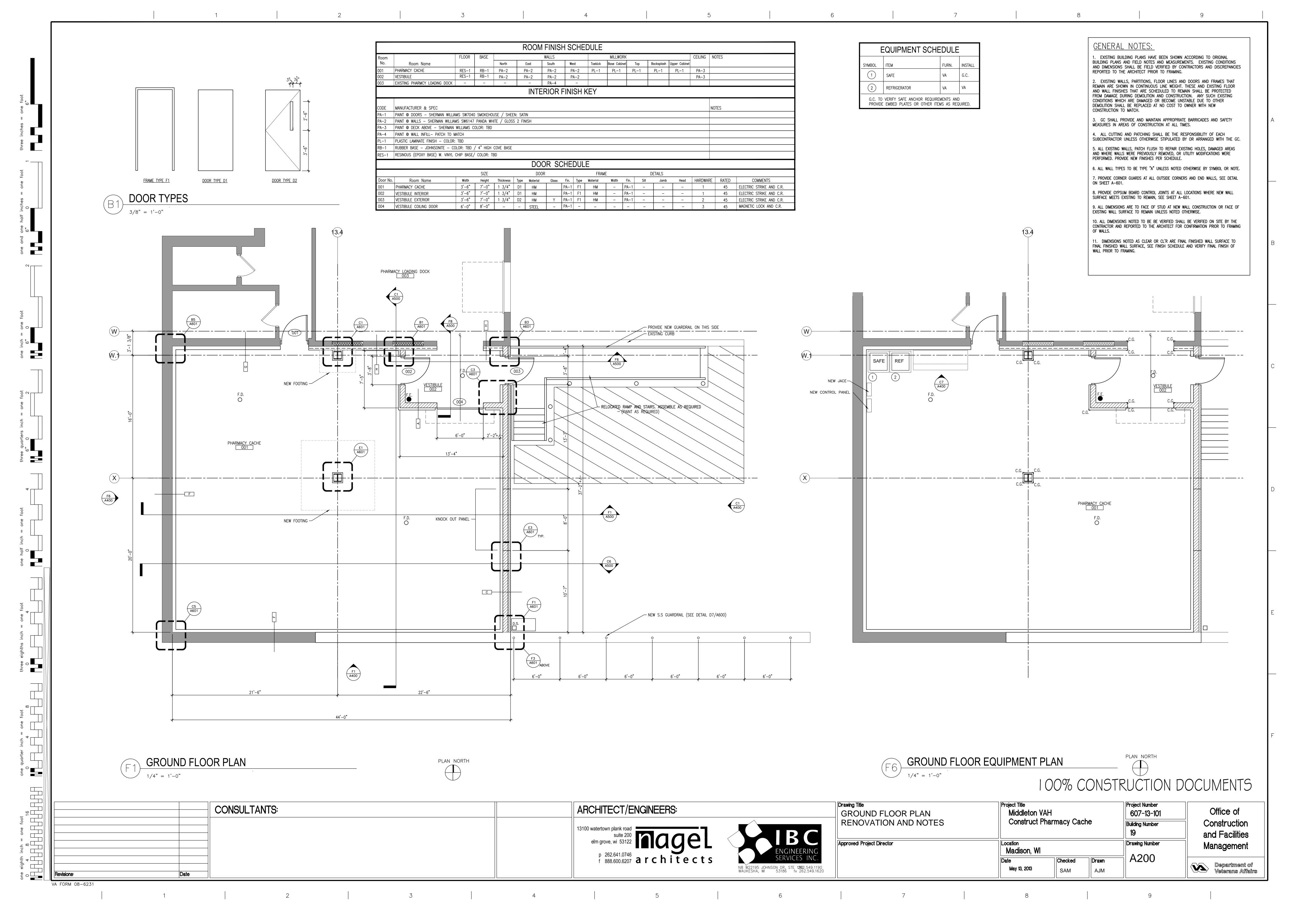
EXISTING BUILDING SECTION LOOKING WEST

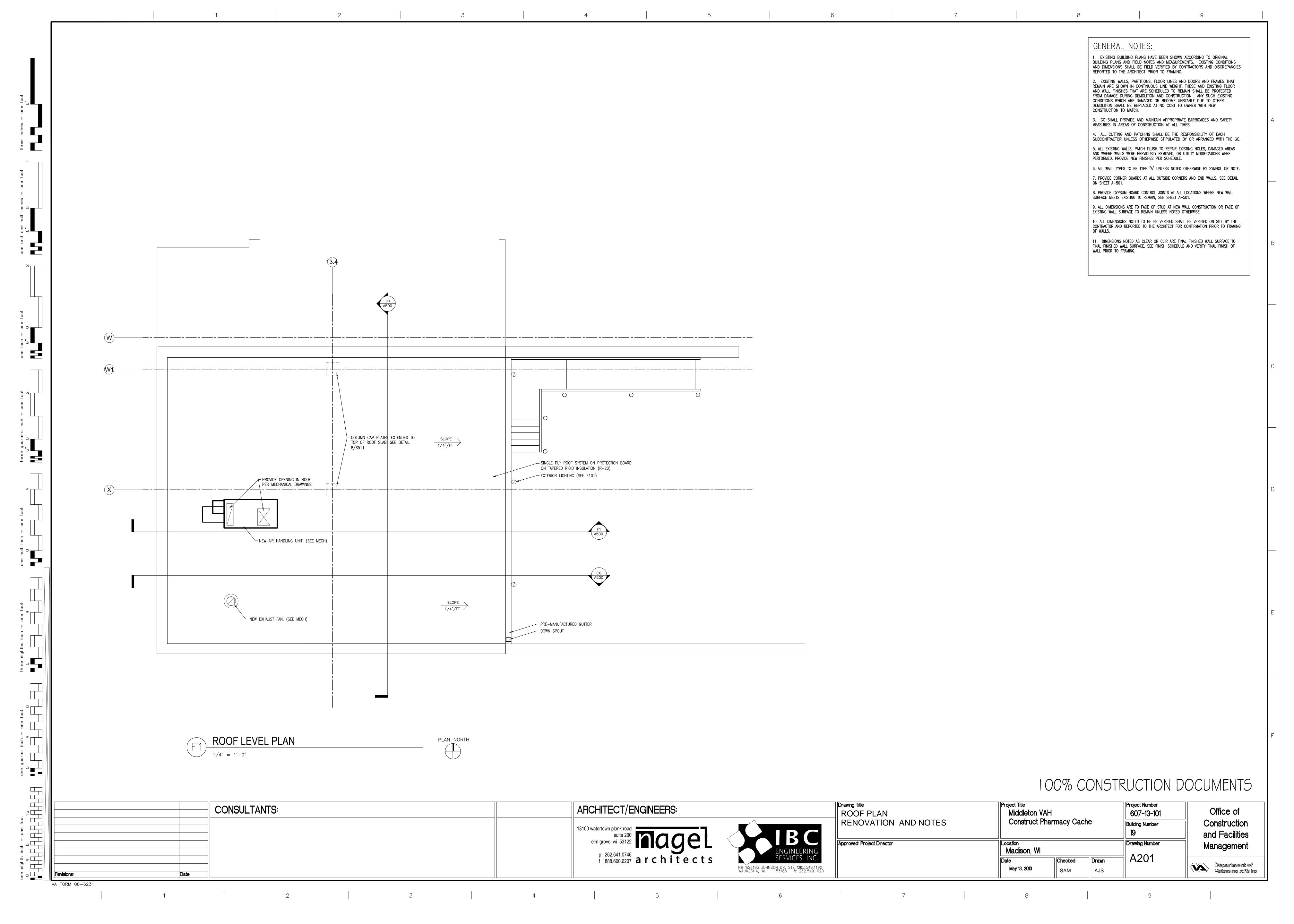
100% CONSTRUCTION DOCUMENTS

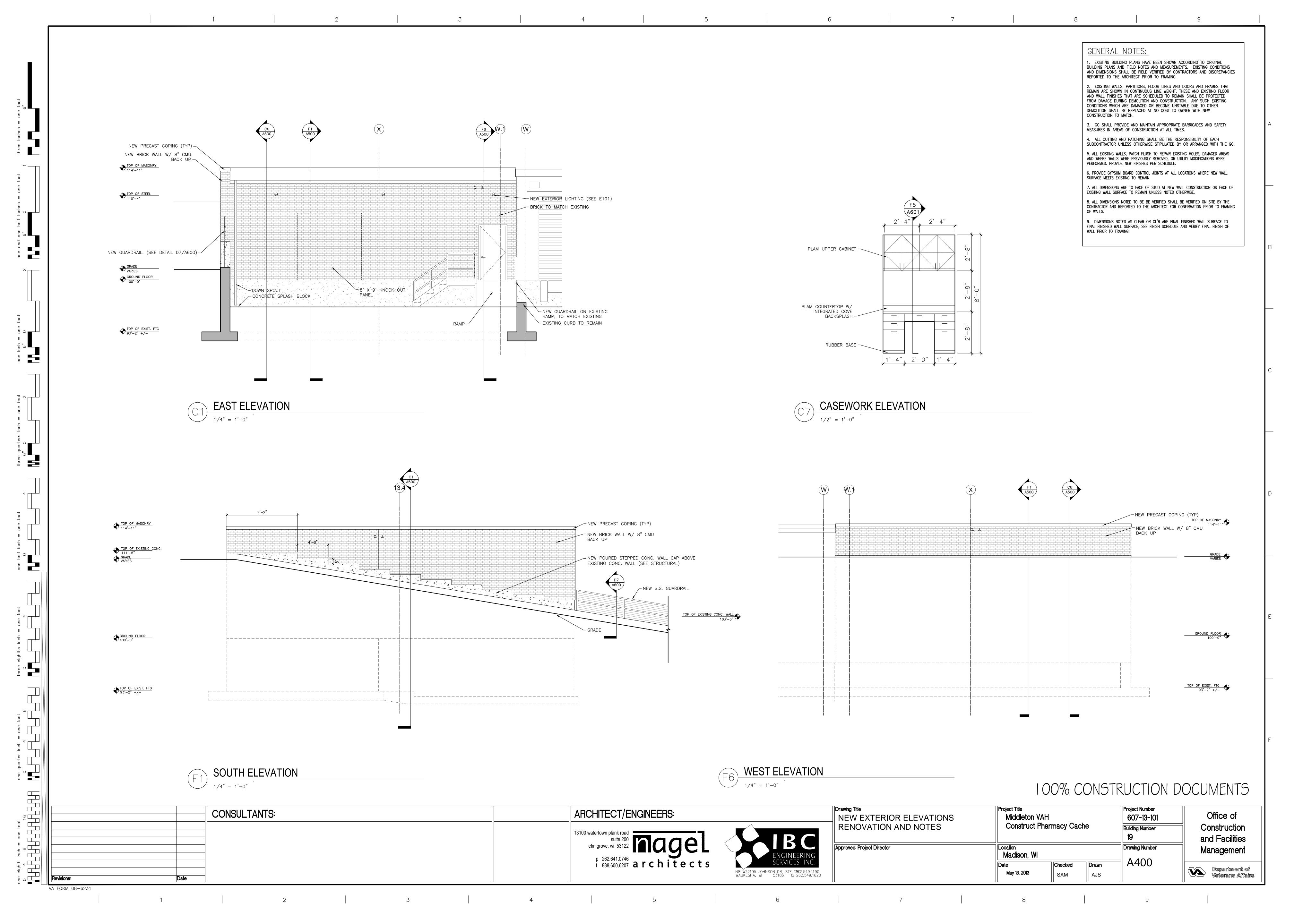
Drawing Title CONSULTANTS: ARCHITECT/ENGINEERS: suite 200 elm grove, wi 53122 Approved: Project Director p 262.641.0746 f 888.600.6207 **architects** VA FORM 08-6231

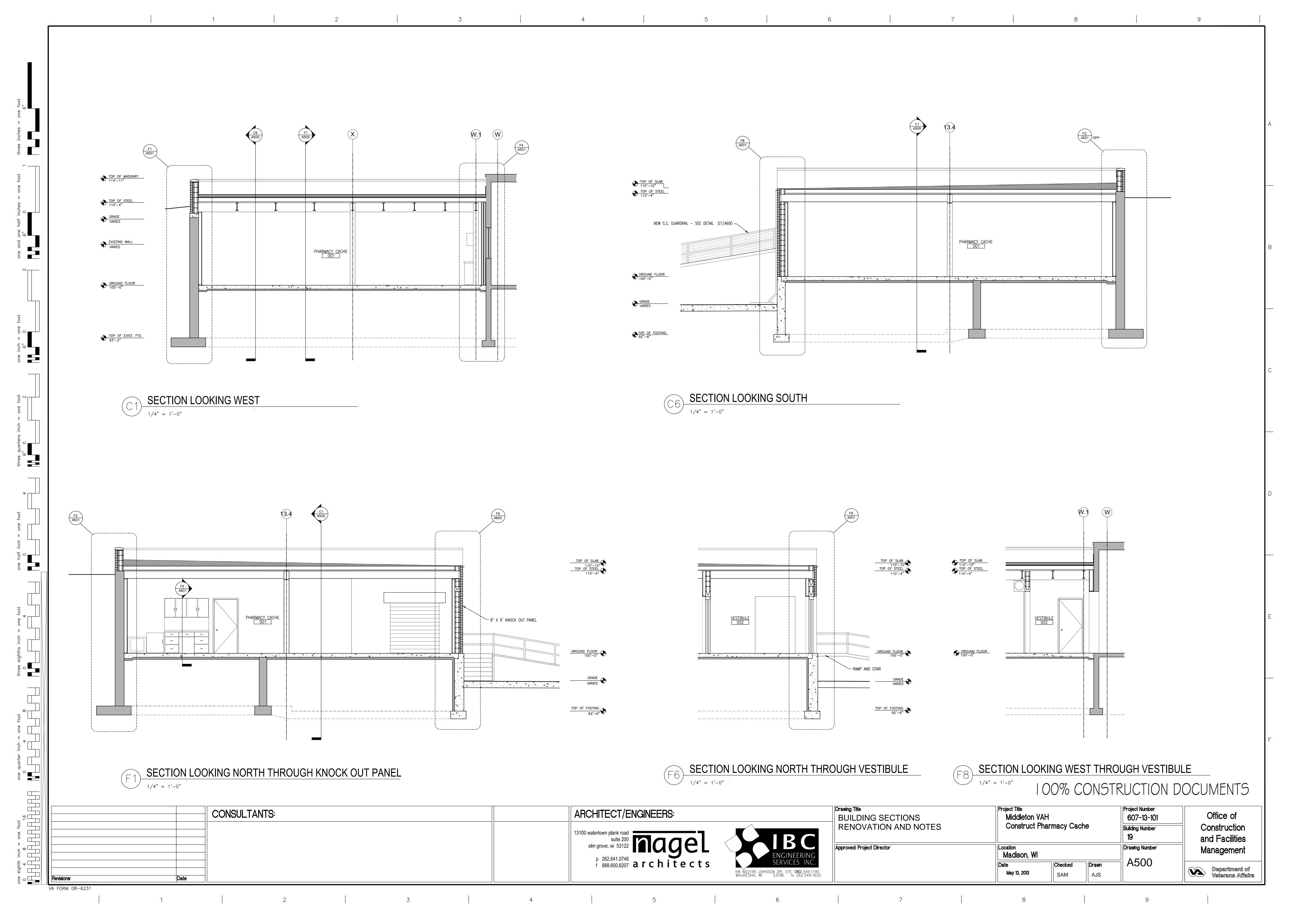
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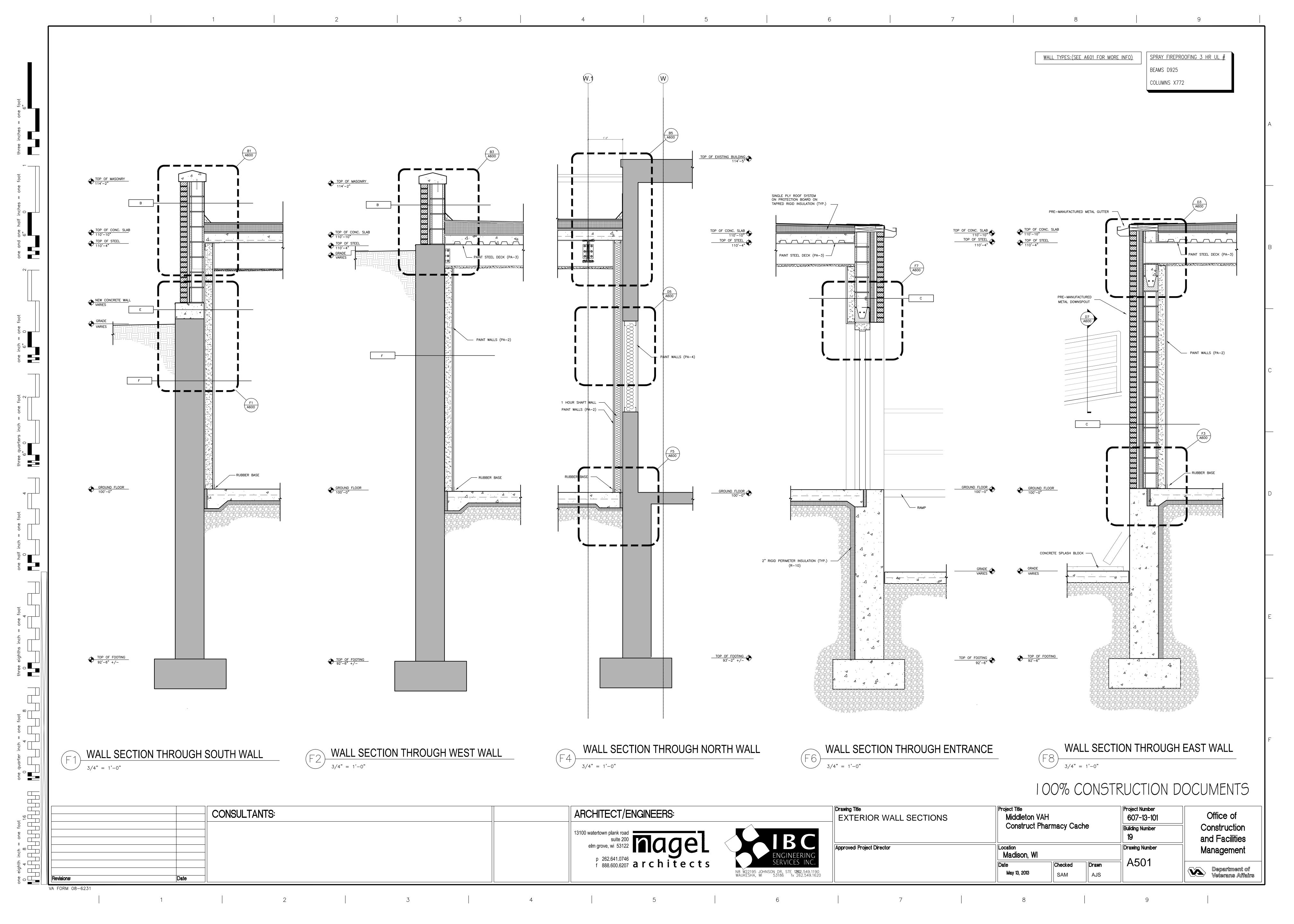
Middleton VAH Project Number Office of EXISTING BUILDING SECTIONS 607-13-101 Construct Pharmacy Cache DEMOLITION AND NOTES Construction Building Number and Facilities Location Madison, WI Drawing Number Management A111 Checked Drawn Department of Veterans Affairs May 13, 2013 SAM AJM

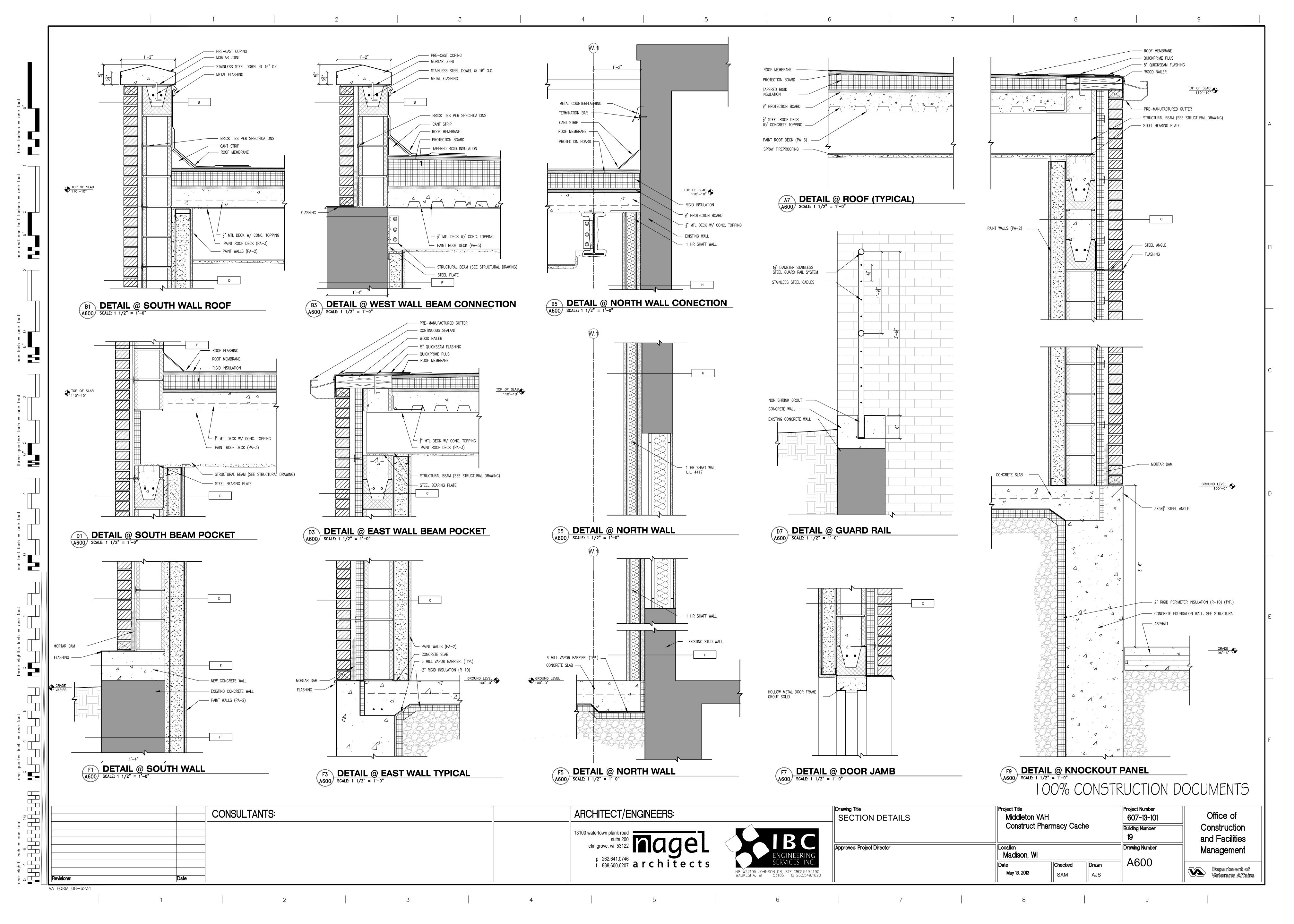


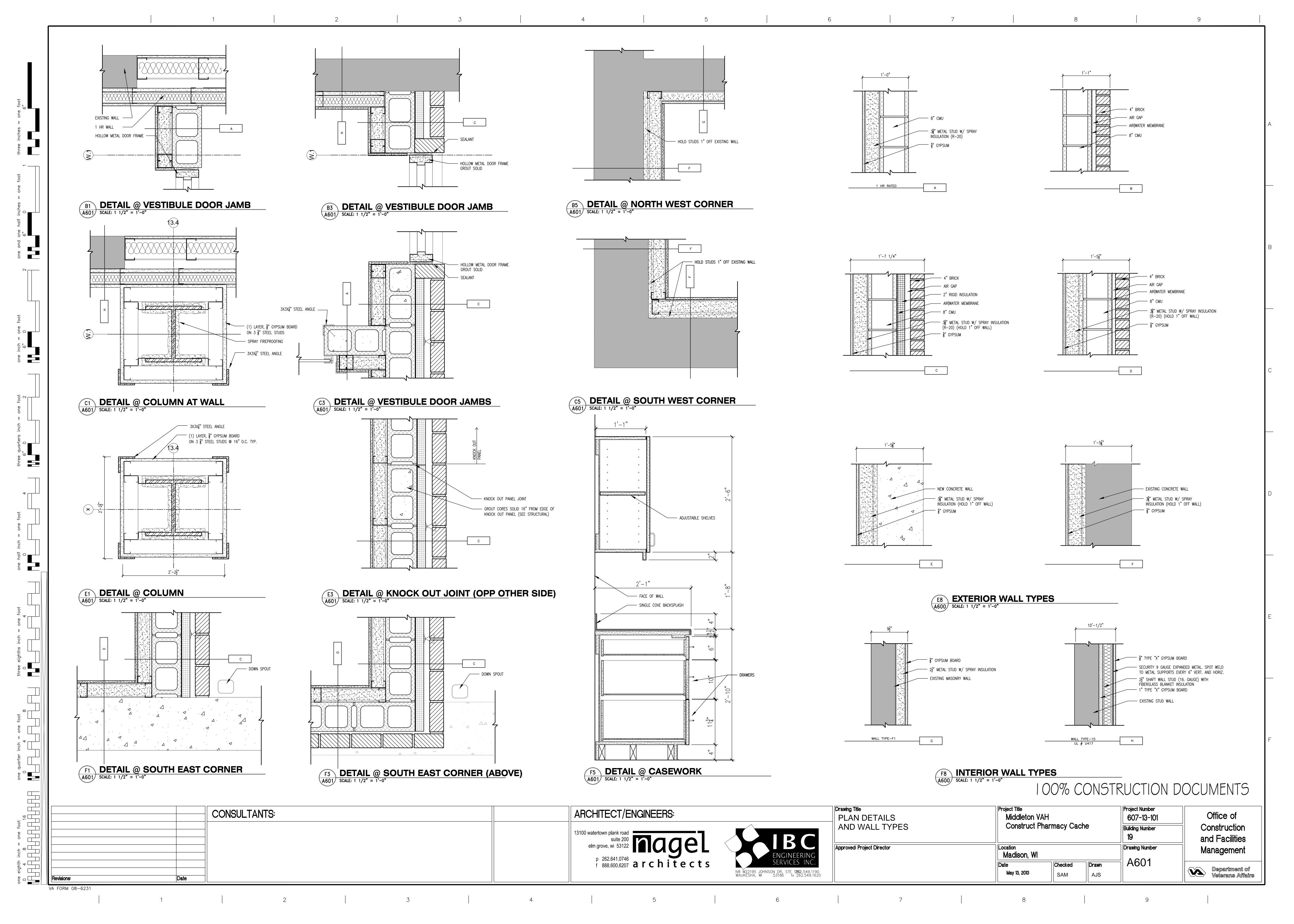












STRUCTURAL NOTES **CONCRETE** CONCRETE MASONRY ABBREVIATIONS LIST STRUCTURAL STEEL COMPONENT STRUCTURAL CALCULATION REVIEW SYMBOLS LIST DESIGN IS IN ACCORDANCE WITH THE 2011 WISCONSIN COMMERICIAL BUILDING FORMWORK SHALL BE DESIGNED IN ACCORDANCE WITH THE ACI MANUAL OF STANDARD NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY WALLS (fm) IS EQUAL TO STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN COMPONENT STRUCTURAL CALCULATIONS SHALL BE SUBMITTED FOR THE FOLLOWING 2500 PSI BASED ON THE CMU STRENGTH AND MORTAR SHOWN ABOVE. ACCORDANCE WITH THE AISC "STEEL CONSTRUCTION MANUAL," FOURTEENTH EDITION AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," RAILING SYSTEMS • THE INTENT OF THESE STRUCTURAL NOTES IS TO INDICATE INFORMATION THAT IS WORD OR PHRASE <u>ABBREVIATION</u> REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACI PRODUCTION AND CONSTRUCTION OF CONCRETE MASONRY SHALL BE IN ACCORDANCE 2. STRUCTURAL STEEL CONNECTIONS APRIL 14, 2010 EDITION. ROUTINELY UTILIZED. ADDITIONAL PROJECT REQUIREMENTS ARE LOCATED WITHIN MANUAL OF STANDARD PRACTICE UNLESS OTHERWISE NOTED. WITH THE BUILDING CODE REQUIREMENTS FOR CONCRETE MASONRY STRUCTURE, ACI 3. HELICAL ANCHORS AND MINI PILES THE PROJECT SPECIFICATIONS ALSO KNOWN AS THE PROJECT MANUAL. ADDM ADDFNDUM DETAIL / SECTION REFERENCE 530.1, LATEST EDITION, AND THE NCMA TECHNICAL GUIDE. THE STRUCTURAL STEEL FABRICATOR SHALL BE AISC CERTIFIED. CONFLICTING INFORMATION BETWEEN THESE DRAWINGS AND THE PROJECT ADDL ADDITIONAL CONTRACTOR SHALL PLACE CONCRETE ACCORDING TO ACI STANDARDS AND PRIOR TO SUBMITTING FOR REVIEW, COMPONENT STRUCTURAL CALCULATIONS SHALL BE SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM AIR HANDLING UNIT COLD WEATHER CONSTRUCTION SHALL BE IN COMPLIANCE WITH NCMA "RECOMMENDED SPECIFICATIONS. [ALL STRUCTURAL AND MISCELLANEOUS STEEL WHICH SHALL REMAIN EXPOSED TO PREPARED UNDER THE DIRECT SUPERVISION AND CONTROL AND BE SIGNED AND SEALED BY AND CLARIFIED IN WRITING PRIOR TO SUBMITTING BIDS AND CHANGE ORDERS. AI TERNATE PRACTICES AND GUIDE SPECIFICATIONS FOR COLD WEATHER MASONRY AND VIEW SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE AISC A STATE OF WISCONSIN REGISTERED ENGINEER EXPERIENCED IN THIS TYPE OF WORK. AT ANCHOR BOL CONTRACTOR SHALL BE AWARE OF COLD WEATHER CONCRETING PRACTICES AND HAVE CONSTRUCTION." "SPECIFICATION FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL" WITHOUT MINIMUM, CALCULATIONS SHALL INCLUDE MATERIAL, LOADING AND SERVICE DESIGN ≺SXXX/ RESISTANCE TO LATERAL LOADS ON STRUCTURE IS PROVIDED BY MASONRY AND DETAIL / PLAN CALLOUT **APPROXIMATE** APPROX COPIES OF NRMCA CIP 27 AND ACI 306R "COLD WEATHER CONCRETING". GAPS OR OPEN JOINTS.] CONCRETE SHEAR WALLS AND ROOF DIAPHRAGMS. CONTRACTOR SHALL ARCHITECT HOT WEATHER CONSTRUCTION SHALL BE IN COMPLIANCE WITH NCMA "RECOMMENDED PROVIDE SUFFICIENT TEMPORARY BRACING UNTIL ALL LATERAL SUPPORT BASEMENT CONTRACTOR SHALL BE AWARE OF HOT WEATHER CONCRETING PRACTICES AND HAVE PRACTICES AND GUIDE SPECIFICATIONS FOR HOT WEATHER MASONRY AND STEEL JOIST FABRICATION AND ERECTION SHALL CONFORM TO THE STANDARD THE REGISTERED ENGINEER SHALL HAVE A MINIMUM OF 5 YEARS OF RELATED EXPERIENCE SYSTEMS ARE IN PLACE AND FUNCTIONAL. COPIES OF NRMCA CONCRETE IN PRACTICE (CIP) 12 AND ACI 305R "HOT WEATHER CONSTRUCTION." SPECIFICATIONS OF THE STEEL JOIST INSTITUTE. JOISTS SHALL BE MANUFACTURED UNLESS NOTED OTHERWISE. **BEARING ELEVATION REFERENCE** WITH HOT-ROLLED TOP AND BOTTOM CHORD MEMBERS. ALL STRUCTURAL FRAMING AND CONNECTIONS HAVE BEEN DESIGNED FOR THE BOTTOM THIS BUILDING IS CLASSIFIED AS A ESSENTIAL FACILITY AND THERFORE REQUIRES A LEVEL REVIEW OR APPROVAL OF CALCULATIONS HAS BEEN LIMITED TO DETERMINING WHETHER FINAL COMPLETED CONDITION AND HAVE NOT BEEN INVESTIGATED FOR BOTTOM OF LAP ALL WALL BARS WITH CLASS B SPLICES UNLESS OTHERWISE DETAILED. LAP WELDED C QUALITY ASSURANCE PROGRAM. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. STEEL DECK FABRICATION AND ERECTION SHALL CONFORM TO THE STANDARD THE SUPERIMPOSED LOADS AND DESIGN ASSUMPTIONS, REPORTED AS HAVING BEEN USED POTENTIAL LOADINGS ENCOUNTERED DURING STEEL ERECTION AND Buii ding WIRE MESH 6 INCHES. IN THE CALCULATIONS SUBMITTED FOR REVIEW, ARE IN GENERAL CONFORMANCE WITH THE SPECIFICATIONS OF THE STEEL DECK INSTITUTE. CONSTRUCTION. ANY INVESTIGATION OF THE STRUCTURAL FRAMING AND CAST-IN-PLACE ELEVATION MASONRY UNITS SHALL BE LAID IN RUNNING BOND UNLESS NOTED OTHERWISE. REQUIREMENTS OF THE CONTRACT DOCUMENTS. NO OTHER DETAILS OF THE CONNECTIONS FOR ADEQUACY DURING THE STEEL ERECTION AND Elevation CENTER PROVIDE COLUMN AND WALL DOWELS OF THE SAME SIZE AND NUMBER AS THE RESPECTIVE ALL WELDING SHALL COMPLY WITH AWS D1.1 USING E70XX ELECTRODES. ALL WELDING CALCULATIONS HAVE BEEN REVIEWED. REVIEW OR APPROVAL SHALL NOT RELIEVE CONSTRUCTION PROCESS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. CENTER LINE STRENGTH OF CONCRETE MASONRY SHOWN IS BASED ON NET AREA OF UNIT. COLUMN AND WALL REINFORCING UNLESS OTHERWISE DETAILED. TO BE DONE BY AWS PREQUALIFIED WELDERS, CERTIFIED FOR WELDS MADE. PROVIDE SUBMITTER EITHER FROM RESPONSIBILITY FOR FULLY COMPLYING WITH ALL COLUMN CONTINUOUS MINIMUM SIZED WELDS PER AISC REQUIREMENTS, UNLESS NOTED REQUIREMENTS OF THE CONTRACT DOCUMENTS, OR FROM ANY ERROR OR OMISSION IN SHEARWALL LABEL STRUCTURAL ITEMS SHALL NOT BE CUT, BENT, DRILLED, BORED OR OTHERWISE COLUMN STRIF PROVIDE TWO (2) #4 BARS AS STIRRUP CARRY BARS WHERE NO TOP STEEL IS AVAILABLE TO . ALL MASONRY SHALL BE NORMAL WEIGHT UNITS IN ACCORDANCE WITH ACI. ANY CALCULATIONS. ALTERED UNLESS APPROVED BY ENGINEER OF RECORD. CONCRETE CONCRETE MASONRY UNIT: CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE ALL WELDING SHALL COMPLY WITH AWS D1.6 USING E316-XX ELECTRODES. THE REGISTERED PROFESSIONAL ENGINEER SEALING THE CALCULATIONS FOR REVIEW DIMENSIONS OF EXISTING CONSTRUCTION OR CONSTRUCTION IN PROGRESS FOOTING STEP PROVIDE DRAWINGS OF PROPOSED CONDUIT AND PIPES TO BE EMBEDDED IN CONCRETE. WARRANTS TO REVIEWING ENGINEER THAT THE SUPERIMPOSED LOADS AND DESIGN SHALL BE VERIFIED AND COORDINATED PRIOR TO FABRICATION OF STRUCTURAL CONSTR CONSTRUCTION WHEREVER AN APPROVED PIPE OR CONDUIT EXTENDS THROUGH A BEAM, PROVIDE ONE • THE MINIMUM SIZE OF FILLET WELDS SHALL BE AS SPECIFIED IN TABLE J2.4 IN THE AISC ASSUMPTIONS, AS INDICATED IN THE CONTRACT DOCUMENTS, HAVE BEEN USED PROPERLY CONSTRUCTION JOINT PROVIDE DOVETAIL ANCHORS BETWEEN MASONRY AND STEEL AND/OR CONCRETE AT ADDITIONAL STIRRUP ON EACH SIDE OF THE OPENING. MANUAL OF STEEL CONSTRUCTION. THROUGHOUT ALL SUCH CALCULATIONS. REVIEWING ENGINEER HAS RELIED UPON THE CONTINUE MOMENT CONNECTION EVERY OTHER BED JOINT UNLESS NOTED OTHERWISE. REGISTERED PROFESSIONAL ENGINEER SEALING THE CALCULATIONS SUBMITTED FOR VERIFY AND COORDINATE, WITH ALL CONTRACTORS, THE LOCATION OF ALL CONTR CONTRACTOR NON-PRESTRESSED CONCRETE PROTECTION FOR REINFORCING BARS SHALL BE DETAILED IN MINIMUM STRENGTH OF WELDED CONNECTIONS: UNLESS NOTED OTHERWISE ON THE REVIEW FOR THE PROPER DESIGN OF ALL COMPONENT(S) TO WHICH THE SEALED ARCHITECTURAL AND MECHANICAL APPURTENANCES AND OPENINGS. MASONRY WALLS SHALL BE ADEQUATELY BRACED TO RESIST WIND FORCES UNTIL ACCORDANCE WITH ACI 318. DRAWINGS. ALL SHOP AND FIELD WELDS SHALL DEVELOP THE FULL TENSILE STRENGTH CALCULATIONS RELATE. ALL SUCH COMPONENT(S) ARE IN COMPLIANCE WITH THE PARTIAL MOMENT CONTROL JOINT PERMANENT DESIGN SUPPORTS ARE IN PLACE AND FUNCTIONAL. BRACING SHALL BE OF THE MEMBER OF ELEMENT JOINED. ALL MEMBERS WITH MOMENT CONNECTIONS, REQUIREMENTS OF THE CONTRACT DOCUMENTS, AND ALL SUCH COMPONENT(S) ARE FIT CONNECTION CONTRACTOR IS RESPONSIBLE FOR ALL MEANS AND METHODS OF DEMOLITION DESIGNED BY THE CONTRACTOR IN ACCORDANCE WITH THE "STANDARD PRACTICE FOR SLABS ON GRADE SHALL BE CAST ALLOWING A SUFFICIENT NUMBER OF JOINTS TO NOTED ON THE DRAWINGS, SHALL BE WELDED TO DEVELOP THE FULL FLEXURAL FOR USE FOR WHICH THEY ARE INTENDED. CONSTRUCTION AND ALL JOB SITE SAFETY. DETAIL ADEQUATELY CONTROL SHRINKAGE CRACKING. SAWCUTTING SHALL BE DONE AS SOON AS BRACING MASONRY WALLS UNDER CONSTRUCTION". SPECIAL PARTIAL RESTRAINED CAPACITY OF THE MEMBER, UNLESS NOTED OTHERWISE ON THE DRAWINGS. DIAGONAL SAWCUT WILL NOT RAVEL CONCRETE OR WITHIN 16 HOURS MAXIMUM OF INITIAL POURING MOMENT CONNECTION PROVISIONS ARE INCLUDED FOR THE FOLLOWING FUTURE ADDITIONS: 1 DIAMETER OPERATION. MAXIMUM SIZE OF PANELS 12 FT X 12 FT. GENERALLY, JOINTS SHALL OCCUR ON PROVIDE DOWELS INTO FOUNDATION THE SAME SIZE AND NUMBER AS WALL BOLTED CONNECTIONS SHALL BE MADE WITH A MINIMUM OF TWO HIGH STRENGTH SHOP DRAWINGS AND SUBMITTALS FLAT ROOF BUILDING ADDITIONAL LEVEL. THE ROOF HAS BEEN DESIGNED FOR A FUTURE 3" CONCRETE DIMENSION COLUMN CENTERLINES. REINFORCING BOLTS (MIN 3/4 INCH DIAMETER). CONNECTIONS SHALL BE DESIGNED TO SUPPORT, AT TOPPING AND 100 PSF LIVE LOAD DIRECTION A MINIMUM, ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY SHOWN IN THE AISC SHOP DRAWINGS AND SUBMITTALS SHALL BE PROVIDED FOR THE FOLLOWING ITEMS: DRAG STRU WELDED WIRE MESH SHALL BE FLAT MANUFACTURED SHEETS. ROLLS ARE NOT PERMITTED. LAP REINFORCING BARS 48 DIAMETERS UNO. TABLES OF UNIFORM LOAD CONSTANTS FOR THE GIVEN BEAM, SPAN, AND STEEL 1. CONSTRUCTION PROCEDURES INCLUDING PROVISIONS FOR HOT AND COLD DRAWING ____ BEAM SPLICE SPECIFIED, UNLESS OTHERWISE DETAILED OR NOTED. BEAM-TO-BEAM AND BEAM-TO-LOADING DESIGN CRITERIA WEATHER CONSTRUCTION DOUBL F ALLOW AT LEAST 24 HOURS BEFORE POURING ADJACENT WALL SECTIONS BETWEEN CONCRETE MASONRY WALL SHALL BE REINFORCED AT EVERY OTHER BED JOINT WITH 9 COLUMN FRAMING CONNECTIONS SHALL BE MADE WITH DOUBLE ANGLES UNLESS . CONSTRUCTION JOINT LOCATIONS IN CONCRETE ELEMENTS EACH CONSTRUCTION JOINTS. MAXIMUM LENGTH OF POUR TO BE 40 FEET, UNLESS CRACK GAGE LADDER TYPE JOINT REINFORCEMENT UNLESS NOTED OTHERWISE. OTHERWISE DETAILED OR NOTED. = INTERIOR ZONES 3. CONDUITS, PIPES, AND SLEEVES EMBEDDED IN CONCRETE ELEMENTS EACH FACE INDUCERS ARE USED AS DETAILED ON THE DRAWINGS. ROOF - ZONES 1 SUPERIMPOSED DEAD LOADS: 4. CONCRETE AND GROUT MIX DESIGNS INCLUDING PROPORTIONING DATA FACH WAY EXTEND BED JOINT REINFORCING INTO CONCRETE COLUMNS 6 INCHES UNLESS WHERE SPECIFIC CONNECTION FORCES AND MOMENTS ARE SHOW IN THE DRAWINGS, WALLS - ZONE 4 FUTURE ROOF MATERIAL CERTIFICATES EDGE OF BUILDING CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER AT LEAST 24 HOURS PRIOR TO DOVETAILS ANCHORS ARE UTILIZED. THE CONNECTIONS SHALL BE DESIGNED FOR SUCH MINIMUM LOADS IN ACCORDANCE TYPICAL UNLESS NOTED 10 PSF 6. REINFORCING STEEL EDGE OF DECK PLACING CONCRETE. WITH THE AISC MANUAL OF STEEL CONSTRUCTION. SPAN ARROW STRUCTURAL STEEL EDGE OF EXISTING BUILDING GROUT STOP DEVICES SHALL BE METAL LATH OR PLASTIC SCREENING. SOLID SHEET A LOAD ALLOWANCE FOR ITEMS INCLUDING FLOORING, CEILING, SPRINKLERS, 8. METAL DECK EDGE OF EXISTING SLAB FOFS CONSTRUCTION JOINTS IN BEAMS, JOISTS, GIRDERS, OR SLABS TO BE LOCATED BETWEEN MATERIAL SHALL NOT BE USED. BOLTS SHALL BE TIGHTED SNUG-TIGHT PLUS ONE-HALF TURN UNLESS NOTED DUCTWORK, PLUMBING AND OTHER MISCELLANEOUS COMPONENTS OF 5 PSF ARE RAILING SYSTEMS' EDGE OF SLAB ROOF PRESSURE TABLE (PSF) THE 1/4 POINT AND CENTERLINE OF THE SPAN, OR AS DIRECTED BY THE ENGINEER. OTHERWISE OR BE TWIST-OFF-TYPE TENSION CONTROL STRUCTURAL BOLT, NUT AND INCLUDED IN THE ABOVE DEAD LOADS. THESE ITEMS SHALL BE SUPPORTED TO 10. STRUCTURAL STEEL CONNECTIONS* ELECTRIC PLAN ELEVATION VERTICAL BARS SHOWN ON THE DESIGN DRAWINGS SHALL BE PLACED IN A CONTINUOUS WASHER ASSEMBLIES. DISTRIBUTE THEIR LOAD EVENLY AND TO NOT EXCEED THIS UNIFORM LOADING. 11. HELICAL ANCHORS AND MINI PILES* **ELEVATION** DO NOT PLACE OR CUT HOLES IN CONCRETE SLABS, BEAMS, COLUMNS OR WALLS WITHOUT TRIBUTARY INTERIOR ZONE 1 (PSF) EDGE ZONE 2 (PSF) CORNER ZONE 3 (PSF) UNOBSTRUCTED CELL OF NOT LESS THAN 3 INCHES BY 4 INCHES. **ELEVATOR** PRIOR APPROVAL OF THE ENGINEER. ALL STRUTS, HANGERS, AND BRACES SHALL HAVE CONNECTIONS DESIGNED TO AREA (FT²) | POSITIVE | NEGATIVE | POSITIVE | NEGATIVE | POSITIVE | NEGATIVE SUPERIMPOSED LIVE LOADS: PRIOR TO SUBMITTING FOR REVIEW. STARRED (*) ITEMS SHALL BE PREPARED UNDER THE EMBED PLATE ALL VERTICAL BARS SHALL BE HELD IN POSITION TO PREVENT DISPLACEMENT BEYOND DEVELOP THE FULL ALLOWABLE TENSILE STRENGTH OF THE MEMBER UNLESS THE SLAB STEP DIRECT SUPERVISION AND CONTROL AND BE SIGNED AND SEALED BY THE ENGINEER ENGINEER CONCRETE EXPOSED TO FREEZE THAW CYCLES SHALL BE AIR-ENTRAINED. MINIMUM AIR THE TOLERANCES ALLOWED BY CONSTRUCTION LOADS OR BY PLACEMENT OF GROUT OR DESIGN FORCE IS INDICATED ON THE DRAWINGS, IN WHICH CASE THE CONNECTIONS PREPARING STRUCTURAL COMPONENT CALCULATIONS OF SUCH ITEMS. SEE CONTENT SHALL BE 6 PERCENT. AIR CONTENT OF CONCRETE FOR SLABS WITH HARD TROWEL MORTAR SHALL BE DESIGNED FOR THE FORCE INDICATED. 100 PSF "COMPONENT STRUCTURAL CALCULATION REVIEW" ABOVE. **EQUALLY SPACED EQLSP** FINISH SHALL NOT EXCEED 3%. NORTH ARROWS **EQUIPMENT** ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLID. COLUMN BASE PLATES SHALL HAVE OVERSIZED HOLES WITH PLATE WASHERS (MIN 3/8- ROOF SNOW LOADS (ASCE 7-10): SHOP DRAWINGS SUBMITTED FOR REVIEW SHALL BEAR THE CONTRACTOR "APPROVAL" EXISTING CAMBER CONCRETE MEMBERS FOR DEAD LOAD DEFLECTION BY ADJUSTING FORMS. INCH THICK) PROVIDED WITH ANCHOR RODS. STAMP. SHOP DRAWINGS RECEIVED WITHOUT CONTRACTOR APPROVAL WILL BE ≥ 100 | 16 | -40 | 16 | -45 | 16 | **EXPANSION** ALL BOND BEAM AND PILASTER SHALL BE REINFORCED AS SHOWN ON THE DESIGN GROUND SNOW LOAD RETURNED WITHOUT REVIEW. EXPANSION BOLT **FXP BT** PIPES AND CONDUITS EMBEDDED IN OR PASSING THROUGH STRUCTURAL MEMBERS MUST DRAWINGS AND FILLED WITH GROUT. WELD WIRE FABRIC GROUT UNDER BASE PLATES IN ACCORDANCE WITH THE AISC "CODE OF STANDARD FLAT ROOF SNOW LOAD Pf =25 PSF EXPANSION JOIN BE APPROVED BY THE STRUCTURAL ENGINEER. PIPE AND CONDUITS EMBEDDED IN RACTICE FOR STEEL BUILDINGS AND BRIDGES." EXPOSURE FACTOR Ce = 1.00REVIEW OR APPROVAL IS LIMITED TO GENERAL CONFORMANCE WITH THE DESIGN FXTFRIOR CONCRETE SHALL NOT BE LARGER THAN 2 INCHES IN OUTSIDE DIAMETER AT THEIR WIDEST PROVIDE CONTINUOUS BOND BEAMS REINFORCED WITH 2-#5 AT ANCHORAGE OF BRICK ---\---**BREAK LINE** IMPORTANCE CATEGORY IV CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION STATED FASTENER WALL PRESSURE TABLE (PSF) POINT OR FITTING OR 1/3 OF THE THICKNESS OF THE SLAB, BEAM OR WALL. SUPPORT ANGLES. • WHERE BEAMS SUPPORT JOISTS FROM ONLY ONE SIDE, JOIST SEAT SHALL EXTEND ONE THERMAL FACTOR IN THE CONTRACT DOCUMENTS AND DOES NOT EXTEND TO MEANS, METHODS. FAR SIDE INCH BEYOND BEAM CENTERLINE. FECHNIQUES, SEQUENCES, OR CONSTRUCTION PROCEDURES. REVIEW OR APPROVAL FLOOR TRIBLITARY INTERIOR ZONE 4 (PSF) EDGE ZONE 5 (PSF) ELECTRICAL CONDUIT OR PIPES EMBEDDED IN OR PASSING THROUGH FLOORS, WALLS OR
 PROVIDE A CONTINUOUS BOND BEAM WITH 2-#5 AT TOP AND BOTTOM OF WINDOWS, UNO. DOUBLE BREAK LINE WIND LOADS (ASCE 7-10): SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS AND OMISSIONS FOOTING BEAMS SHALL BE LOCATED AND PLACED SO THAT: JOIST SHALL BE DESIGNED FOR NET UPLIFT SPECIFIED ABOVE. SUPPLIER SHALL IN THE SHOP DRAWINGS OR FROM OBLIGATIONS TO COMPLY WITH THE REQUIREMENTS FOUNDATION 1. THEY ARE NOT CLOSER THAN THREE DIAMETERS ON CENTER. PROVIDE A CONTINUOUS BOND BEAM AT TOP OF WALLS WITH 2-#5, UNO. PROVIDE ALL ADDITIONAL BRIDGING AND BRACING. IN ADDITION, BRIDGING STANDARD BASIC WIND SPEED (3-SECOND GUST) Vult = 120 MPH OF THE CONTRACT DOCUMENTS. APPROVAL OF A SPECIFIC ITEM SHALL NOT INDICATE **GALVANIZED** 2. THE CONCRETE COVER IS NOT LESS THAN 2". WITH THE MANUFACTURER AND COMPLYING WITH THE APPLLICABLE STEEL JOIST APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. REVISION CLOUD ALL DOOR AND WINDOW JAMBS SHALL CONTAIN 1.#5 (MINIMUM) FULL HEIGHT OF WALL AND 3. THEY RUN BETWEEN REINFORCING AND DO NOT DISPLACE IT IN ANY MANNER. INSTITUTE SPECIFICATION OF LATEST ADOPTION SHALL BE USED FOR BRIDGING ALL RISK CATEGORY GENERAL CONTRACTOR AND REVISION TRIANGLE BE GROUTED SOLID 8 INCHES WIDE UNLESS SHOWN OTHERWISE. JOISTS FURNISHED BE THE MANUFACTURER. **EXPOSURE CATEGORY** CONTRACTOR IS SOLELY RESPONSIBLE FOR: DIMENSIONS TO BE VERIFIED AT THE NO ALUMINUM CONDUIT SHALL BE PLACED IN CONCRETE ROJECT SITE: INFORMATION PERTAINING TO THE FABRICATION PROCES PROVIDE A CONTINOUS BOND BEAM WITH 2-#5 AT ALL BEARING ELEVATIONS, UNO. • METAL DECK SHALL BE GALVANIZED WITH A MINIMUM G-90 COATING PER ASTM A653. ≥ 500 29 -32 29 -32 INTERNAL PRESSURE COEFFICIENTS GCpi = +/- 0.18 COORDINATION OF THE WORK OF ALL TRADES; AND PERFORMING ALL WORK IN A SAFE INFORMATION FOOTING MARK CHAMFER ALL EXPOSED CONCRETE CORNERS. SEE ARCHITECTURAL/STRUCTURAL WIND DIRECTIONALITY FACTOR AND SATISFACTORY MANNER AND IN COMPLIANCE WITH THE REQUIREMENTS OF THE INSIDE DIAMETER DRAWINGS FOR REQUIREMENTS. WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW BEAM METAL DECK SHALL BE LAID OUT AND INSTALLED TO HAVE A MINIMUM OF 3 WIND-BORNE DEBRIS REGION INTERIOR REACTIONS SHALL BE 16 INCHES DEEP BY 32 INCHES LONG. CONTINUOUS SPANS. IF LESS THAN THE MINIMUM IS REQUIRED, PROVIDE THICKER COMPONENT AND CLADDING PRESSURES SEE SHEET S-001 KEYNOTE MARK JOIST PROPER CURING PROCEDURES SHALL BE USED FOR SLAB-ON-GRADE TO PREVENT CURLING. GAGE DECK AS REQUIRED. JOIST BEARING WHERE NOT SHOWN OTHERWISE, MINIMUM SOLID GROUTED MASONRY BELOW LINTEL SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. SEISMIC LOAD (ASCE 7-10): PARAPET PRESSURE TABLE (PSF) REACTIONS SHALL BE 16 INCHES DEEP BY 16 INCHES LONG. ROOF DECK SHALL BE AS INDICATED ON THE DRAWINGS UNO. LINTEL MARK KNFF BRACE CALCIUM CHLORIDE SHALL NOT BE USED IN CONCRETE MIXES. RISK CATEGORY LONG LEG HORIZONTA MASONRY IN CONTACT WITH SOIL SHALL HAVE ALL ADJACENT CELLS FULLY GROUTED. STEEL FLOOR DECK SHALL BE FASTENED TO ALL STRUCTURAL SUPPORTS BY SEISMIC USE GROUP LONG LEG VERTICAL PROVIDE WATERSTOPS AT ALL CONSTRUCTION JOINTS BELOW THE WATER TABLE AND AS WELDING. SPACING OF FASTENERS SHALL BE 4 WELDS PER 36 INCH SHEET WIDTH. DESIGN SPECTRAL RESPONSE COEFFICIENTS SDS = 0.067 g PIER MARK AREA (FT²) INTERIOR CORNER INTERIOR CORNER SHOWN ON DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. AT GROUTED CELLS PROVIDE FULL BED JOINTS AROUND CELL PERIMETER. WELDS SHALL BE 5/8 INCH DIAMETER PUDDLE WELDS. MECHANICA CONTRACTOR SHALL INCLUDE ADDITIONAL CONCRETE FOR METAL DECK SLABS TO ACCOUNT • STEEL HEADED STUD LENGTH FOR COMPOSITE BEAMS SHALL BE 1-1/2 INCHES ABOVE CONTROL JOINTS IN MASONRY WALLS SHALL BE PROVIDED AND SPACED NO GREATER CONCRETE COLUMN SEISMIC DESIGN CATEGORY MEZZANINE FOR DEFLECTIONS IN DECK AND BEAMS. THAN 25 FEET ON CENTER OR MORE THAN 12 FEET FROM A BUILDING CORNER. CONTROL THE COMPOSITE DECK UNLESS NOTED OTHERWISE. BASIC SEISMIC FORCE RESISTING SYSTEM MIDDLE STRIP JOINT SHALL ALSO BE PROVIDED NEAR WALL OPENING JAMBS AT WALL INTERSECTIONS. REINFORCED CONCRETE AND MASONRY SHEAR WALLS CONTRACTOR SHALL INCLUDE ADDITIONAL CONCRETE FOR SLABS AND BEAMS TO ACCOUNT AND AT CHANGES IN WALL HEIGHT. CONTROL JOINTS SHALL NOT BE LOCATED WITHIN CLEAN, PREPARE, AND SHOP PRIME EXTERIOR EXPOSED STRUCTURAL STEEL STEEL COLUMN DESIGN BASE SHEAR MISCELL ANEOUS GROUTED AREA BENEATH BEAM REACTIONS. MEMBERS IN ACCORDANCE WITH S.S.P.C. STANDARDS SP-1 AND SP-6. ANALYSIS PROCEDURE STATIC NEAR SIDE ALL CONCRETE COLUMNS AND BEAMS INTEGRATED WITH CONCRETE MASONRY UNITS FOR CAVITY WALL CONSTRUCTION, OFFSET CONTROL JOINTS IN CMU FROM CONTROL • CLEAN, PREPARE, AND SHOP PRIME INTERIOR EXPOSED STRUCTURAL STEEL MEMBERS SLAB / DECK OPENING 6. MISCELLANEOUS LOADS NOT IN CONTRACT NOMINALLY NOTED AS 8, 10 AND 12 INCH SHALL MATCH ACTUAL WIDTH OF CMU, 7-5/8, 9-5/8 AND JOINTS IN BRICK VENEER BY 12 FT +/-, UNO. IN ACCORDANCE WITH S.S.P.C. STANDARDS SP-1 AND SP-3. NOT TO SCALE HAND RAILINGS: 50 PLF IN ANY DIRECTION AND 200 LBS IN ANY DIRECTION. ON CENTER SEE ARCHITECTURAL DRAWINGS FOR BRICK CONTROL JOINT LOCATIONS. X-#XX * TWO-WAY SLAB WHILE THE DESIGN DOCUMENTS MAY REFERENCE OSHA, THEY ARE NOT INTENDED TO OVERHANGS, CANOPIES, AWNINGS VEHICLE BARRIERS: 6000 LB HORIZONTAL LOAD IN ANY DIRECTION. • PROVIDE DOVETAIL ANCHORS BETWEEN MASONRY AND CONCRETE AT EVERY OTHER BED SPECIFICALLY IDENTIFY ALL APPLICABLE OSHA REQUIREMENTS. IT IS THE REINF. NOTE OPPOSITE PROVIDE 3 INCH MINIMUM CLEANOUTS IN THE BOTTOM COURSE OF MASONRY FOR EACH CONTRACTORS RESPONSIBILITY TO IDENTIFY AND COMPLY WITH ALL APPLICABLE PRESSURE TABLE (PSF) OPPOSITE HAND EARTHWORK AND FOUNDATIONS CONTINUOUS BARS GROUT POUR WHEN THE WALL AND GROUT POUR HEIGHT EXCEEDS 5 FEET. IN SOLID **OUTSIDE DIAMETER** CONTRACTOR SHALL BE RESPONSIBLE FOR QUANTITIES OF CONCRETE FOR FLAT SLABS, (LEFT OR RIGHT) GROUTED MASONRY, SPACE CLEANOUTS HORIZONTALLY A MAXIMUM OF 32 INCHES ON THE GEOTECHNICAL REPORT, REPORT NO. C13013 AND ALL SUPPLEMENTS AS BEAMS AND COMPOSITE SLABS WHILE ACCOUNTING FOR DEFLECTIONS OF FORMWORK, ALL STEEL SHALL BE POSITIONED WITH THE NATURAL CAMBER OR INDUCED CAMBER PREPARED BY <u>CGC</u> AND DATED JANUARY 23, 2013 WAS USED AS THE BASIS OF PLYWOOD CONCRETE COLUMN MARK AREA (FT²) | POSITIVE | NEGATIVE | POSITIVE | NEGATIVE QUANTITY MAXIMUM GROUT POUR HEIGHT IS BASED ON THE GROUT SPACE REQUIREMENTS OF THE STEEL COLUMN MARK SPECIFICATION FOR MASONRY STRUCTURES. <u>MATERIAL DESIGN CRITERIA</u> REFER TO ARCHITECTURAL SHEETS FOR STRUCTURAL STEEL AND DECK TO BE FOOTINGS SHALL BE CAST ON UNDISTURBED SUBSOIL OR COMPACTED FILL MEETING REINFORCE THE MINIMUM DESIGN CAPACITY NOTED ABOVE. REQUIRED CONCRETE BEAM MARK • THE TOP OF A GROUT POUR OR COLD JOINT SHALL NOT BE LOCATED WITHIN 1-1/2 INCHES ROOF DRAI OF A BED JOINT WHEN MULTIPLE GROUT LIFTS ARE USED. • THE THICKNESS OF THE FIREPROOFING MATERIAL SHALL BE BASED ON STEEL MEMBER SOIL SHALL MEET THE COMPACTION REQUIREMENTS AS DEFINED IN THE MINIMUM 28 DAY STRENGTH SHALL BE **SCHEDULE** SHEARHEAD MARK ≥ 100 16 -56 16 SIZES, FIREPROOFING MATERIAL AND THE HOURLY RESISTANCE RATING SPECIFIED GEOTECHNICAL REPORT. IF IT IS NOT ENCOUNTERED AT THE ELEVATIONS SHOWN. CONSOLIDATE GROUT AT THE TIME OF PLACEMENT ABOVE. CALCULATIONS TO SPECIFY THE REQUIRED THICKNESS SHALL BE CONSULT GEOTECHNICAL ENGINEER AND RESIDENT ENGINEER BEFORE PROCEEDING FOOTING AND FOUNDATION WALLS 4000 PSI BRACED FRAME SLABS ON GRADE SHEARWAL WHEN THE GROUT LIFT HEIGHT EXCEEDS 12.67 FEET, THE CONTRACTOR SHALL PROVIDE A NO HOLES, TRENCHES OR DISTURBANCES OF THE SOIL SHALL BE ALLOWED WITHIN THE TOPPING FOR METAL DECK 4000 PSI SIMII AR "GROUT DEMONSTRATION PANEL" THAT SHALL BE APPROVED BY THE PERMITTING STEEL BEAM REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL MISCELLANEOUS STEEL. VOLUME DESCRIBED BY 45 DEGREE LINES SLOPING FROM THE BOTTOM EDGE OF THE STEEL BASE PLATE GROUT 7000 PSI SPECIFICATION AGENCY, OWNER, ENGINEER AND ARCHITECT PRIOR TO ENGAGING IN GROUT PLACEMENT. PENETRATION MARK FOOTING. IF SUCH ARE REQUIRED, FOOTINGS MUST BE LOWERED. 1. POSITIVE AND NEGATIVE VALUES INDICATE WIND PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY. STANDARD COORDINATE WITH THE ELECTRICAL CONTRACTOR THE GROUTING OF CONDUIT IN CORES. c = X/X''STEEL BEAM CAMBER BACKFILL EVENLY ON EACH SIDE OF FOUNDATION WALLS AND RETAINING WALLS 1. PLAIN REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60. <u>COLD-FORMED STEEL FRAMING</u> STEEL JOIST 2. WELDABLE GRADE REINFORCING STEEL SHALL CONFORM TO ASTM A706 OR 2. TRIBUTARY AREA IS THE PRODUCT OF SPAN LENGTH MULTIPLIED BY STRUCTURA CONDUITS, PIPES AND SLEEVES OF ANY MATERIAL TO BE EMBEDDED IN MASONRY SHALL STEEL BEAM REACTION DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL FLOOR SYSTEM IS IN PLACE AND DESIGN, FABRICATION, AND ERECTION OF COLD-FORMED STEEL FRAMING SHALL BE IN TRIBUTARY WIDTH OF THE ELEMENT UNDER CONSIDERATION. THE BE COMPATIBLE WITH THE MASONRY. ALUMINIUM PRODUCTS SHALL NOT BE USED. FASTENED OR UNTIL WALLS ARE ADEQUATELY BRACED. BRACING SHALL BE DESIGNED 3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. TEMPORAR\ TRIBUTARY WIDTH IS THE SMALLER OF ONE THIRD OF THE SPAN OR THE ACCORDANCE WITH THE AISI DESIGN MANUAL AS AMENDED TO DATE. ALL FRAMING STEEL BEAM (# OF STUDS) BY THE CONTRACTOR. 4. STAINLESS STEEL REINFORCING SHALL CONFORM TO ASTM A706 or A955. ACTUAL WIDTH OF THE DOOR/WINDOW/WALL. MEMBERS SHOWN ON PLANS ARE SCHEMATIC AND ARE SHOWN FOR INTENT ONLY. TOP AND BOTTO CONDUITS, PIPES AND SLEEVES IN MASONRY SHALL BE NO CLOSER THAN 3 DIAMETERS ON 5. SYNTHETIC FIBER REINFORCING SHALL CONFORM TO ASTM C1116. (ASSUMES THAT THE DESIGN AND CALCULATIONS WILL BE REVIEWED BY GRAEF.) TOP ELEVATION MATCHES JOIST TEMJ CENTER. ALL HORIZONTAL CONDUITS TO BE ROUTED IN BOND BEAMS. TOPSOIL OR FILL BELOW SLABS ON GRADE SHALL BE REMOVED. SUBGRADE UNDER TOP OF 3. CASE A = PRESSURE TOWARDS BUILDING; CASE B = PRESSURE AWAY SLABS SHALL BE BANKRUN GRAVEL COMPACTED TO 6 INCH LAYERS. CONCRETE MASONRY STEEL STUD CURTAIN WALL AND CONNECTIONS TO BE DESIGNED BY SUPPLIER. (STEEL TOP OF BEAM FROM BUILDING. VERTICAL CONDUIT, PIPING, ETC. SHALL BE LOCATED IN CELLS NOT CONTAINING 1. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 TYPE II, NORMAL TOP OF CONCRETE STUD CURTAIN WALL AND CONNECTION DESIGN SHALL BE SEALED BY PROFESSIONAL REINFORCEMENT. CONDUIT, PIPING, ETC. SHOULD NEVER BE TIED TO REINFORCEMENT; BACKFILL AGAINST INTERIOR FOUNDATION WALLS SHALL BE BANKRUN GRAVEL STRUCTURAL ENGINEER EXPERIENCED IN THIS WORK AND REGISTERED IN THE STATE OF TOP OF EXISTING BEAM PROVIDE VERTICAL BAR POSITIONERS. 2. MORTAR SHALL CONFORM TO ASTM C270 TYPE S ABOVE GROUND AND TYPE M COMPACTED TO MAXIMUM 6 INCH LAYERS. TOP OF EXISTING CONCRETE BELOW GROUND. TOP OF LEDGE NO PENETRATIONS FOR MEP, IT, ETC. ARE ALLOWED WITHIN 40-INCHES OF ENDS OF BACKFILL AGAINST EXTERIOR FOUNDATION WALLS SHALL BE BANKRUN GRAVEL 3. MASONRY GROUT SHALL CONFORM TO ASTM C476 MINIMUM COMPRESSIVE MIMINUM DESIGN THICKNESS OF STUDS AND TRACK AT EXTERIOR OF BUILDING VERTICALLY TOP OF DRILLED PIER/CAISSON SHEARWALLS UNO WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER. COMPACTED TO MAXIMUM 6 INCH LAYERS. STRENGTH fc = 3000 PS TOP OF WALL NOT SUPPORTING MASONRY SHALL BE 6-INCHES (GAGE: 20). SEE PLANS FOR LOCATIONS OF SHEARWALL END REINFORCEMENT ZONES. 4. CONCRETE MASONRY UNITS NET AREA COMPRESSIVE STRENGTH OF 3750 PSI TOP OF PIER PROVIDE MINIMUM 24 INCHES OF WASHED STONE OVER ALL DRAIN TILES AND 4 INCHES TOP OF FOOTING LOAD BEARING STUDS NOT VERTICALLY SUPPORTING MASONRY SHALL BE DESIGNED TO NO PENETRATIONS FOR MEP, IT, ETC. ARE ALLOWED AT LINTEL BEARING LOCATIONS COLD-FORMED STEEL DECKING CARRY ALL GRAVITY LOADS AND LATERAL FORCES INCLUDING BUT NOT LIMITED TO DEAD TOP OF STEEL THROUGH LINTELS/BOND BEAMS, IN CMU PIERS, AT DOOR JAMBS, OR WITHIN 8-INCHES OF 1. STEEL MATERIAL SHALL CONFORM TO ASTM A653, 33 KSI. LOADS, LIVE LOADS, WIND LOADS, AND AXIAL LOAD ECCENTRICITY. A CMU CONTROL JOINT UNO WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL SEE GEOTECHNICAL REPORT NOTED ABOVE FOR RECOMMENDATIONS TO CONTROL **UNLESS NOTED OTHERWISE** GROUND WATER LEVELS DURING CONSTRUCTION. SPLICES IN AXIALLY LOADED STUDS ARE NOT PERMITTED. 1. STRUCTURAL STEEL W-SHAPES SHALL CONFORM TO ASTM A992, GRADE 50. **VERTICAL** ANY OPENING OR A GROUP OF OPENINGS THROUGH LOAD BEARING OR SHEARWALLS 2. STRUCTURAL STEEL PLATES, ANGLES, CHANNELS, AND OTHER ROLLED MEMBERS STUDS, TRACK, AND ACCESSORIES SHALL BE GALVANIZED WITH A MINIMUM G-90 COATING VERIFY IN FIELD REQUIRING PENETRATION GREATER THAN 8-INCHES BY 8-INCHES THAT ARE NOT SHOWN ANCHORS AND FASTENERS PER ASTM A653. Sheet List EXPLICITLY WITH LINTEL CALLOUTS ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED 3. RECTANGULAR AND SQUARE MEMBERS SHALL CONFORM TO ASTM A500 GRADE B, WITHOUT BY THE STRUCTURAL ENGINEER TWO WEEKS PRIOR TO CONSTRUCTION OF THE WALL. Sheet STUDS SHALL BE PLUMBED, ALIGNED, AND SECURELY ATTACHED TO FLANGES OR WEBS WORK POIN INSTALLATION OF MECHANICAL AND ADHESIVE ANCHORS, FASTENERS AND SCREWS SHALL 4. ROUND HSS MEMBERS SHALL CONFORM TO ASTM A500 GRADE B, Fy = 42 KSI. BE IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS. INSTALLERS SHALL BE TRAINED OF LOWER TRACK. STUDS SHALL BE SEATED TIGHT TO TRACK WEBS PRIOR TO WELDED WIRE FABRIC Number Sheet Name 5. STEEL PIPE SHALL CONFORM TO A53 GRADE B. BY THE MANUFACTURERS REPRESENTATIVE. WELDED WIRE MESH WWM 6. STEEL HEADED STUDS SHALL CONFORM TO ASTM A108 GRADE 1015, 1017 OR 1020, WEIGHT JOINTS SHALL BE LOCATED DIRECTLY OVER BEARING STUDS OR A LOAD DISTRIBUTION EXPANSION, SLEEVE, SCREW AND ADHESIVE ANCHORS SHALL BE HILTI, INC., OR ENGINEER GENERAL NOTES 7. STEEL STUDS FOR SHEAR RAIL REINFORCMENT SHALL CONFORM TO ASTM A1044. APPROVED SUBSTITUTION. MEMBER SHALL BE PROVIDED AT THE TOP OF THE WALL. FOUNDATION AND FRAMING PLANS 8. STEEL ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36. STEEL BOLTS SHALL CONFORM TO ASTM A325 • REFER TO ARCHITECTURAL WALL SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION. FOUNDATION DETAILS STEEL EYEBOLTS SHALL CONFORM TO ASTM A489 11. STEEL NUTS SHALL CONFORM TO ASTM A563. S505 MASONRY DETAILS STEEL STUD ERECTOR SHALL CONSTRUCT ALL LIGHTGAGE FRAMING IN A MANNER WHICH STEEL WASHERS SHALL CONFORM TO ASTM F436. PROTECTS LATERAL STABILITY OF THE STRUCTURE. S510 STEEL DETAILS 13. TWIST-OFF-TYPE TENSION CONTROL STRUCTURAL BOLT, NUT AND WASHER ASSEMBLIES SHALL CONFORM TO ASTM F1852. • ALL WELDS PERFORMED ON GALVANIZED LIGHTGAGE COMPONENTS SHALL BE COATED STEEL DETAILS 14. COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATORS FOR USE WITH WITH ZINC RICH PAINT FOR CORROSION PROTECTION IN ACCORDANCE WITH ASTM A780. STRUCTURAL FASTENERS SHALL CONFORM TO ASTM F959. CONTRACTOR SHALL NOTIFY THE ARCHITECT TO ALLOW ADEQUATE TIME FOR WELDS TO BE REVIEWED BEFORE SYSTEMS ARE ENCLOSED. STRUCTURAL STAINLESS STEEL 1. STAINLESS STEEL STRUCTURAL ANGLES, TEES AND PLATES SHALL CONFORM TO STEEL STUD WALLS SHALL BE DESIGNED AND CONSTRUCTED TO PROVIDE REQUIRED ASTM A276 ALLOY 304. 2. STAINLESS STEEL HOLLOW STRUCTURAL SHAPES (HSS) SHALL CONFORM TO ASTM NECESSARY BRIDGING OR ATTACHMENT TO WALL SHEATHING BEFORE STRUCTURAL A1016 ALLOY 304. COMPONENTS ARE LOADED. 3. STAINLESS STEEL BOLTS SHALL CONFORM TO ASTM F593 ALLOY 304. 4. STAINLESS STEEL NUTS AND WASHERS SHALL CONFORM TO ASTM F594 ALLOY 304. 5. STAINLESS STEEL WIRE ROPE SHALL CONFORM TO ASTM A492. FOUNDATIONS 100% CONSTRUCTION DOCUMENTS 1. SHALLOW FOUNDATIONS A. NET ALLOWABLE BEARING CAPACITY FOR SPREAD FOOTINGS IS 2500 PSF Project Number CONSULTANTS ARCHITECT/ ENGINEERS: Drawing Title: 607-13-101 Middleton VAH **GENERAL NOTES** Construct Pharmacy Cache Building Number N8 W22195 JOHNSON DR 19 13100 watertown plank road 5126 W. Terrace Drive STE 180 Approved: Project Director _ocation Drawing Number: WAUKESHA, WI 53186 Madison, WI 53718-8343 Madison, WI 262.549.1190 608 / 242 1550 262.549.1620 fx p 262.641.0746 f 262.641.0584 608 / 242 0787 fax architects Checked BS May 13, 2013 www.graef-usa.com Dwg.

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6

ROOF - ZONES 2

POSITIVE NEGATIVE POSITIVE NEGATIVE

ZONE ZONE ZONE ZONE

-67

-56

17 -100

Department of

Veterans Affairs

16

131

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ZONE 1 & 2 (PSF)

16 -58

-60

38

32

-41

-36

-70 17

16

17

-40 | 16

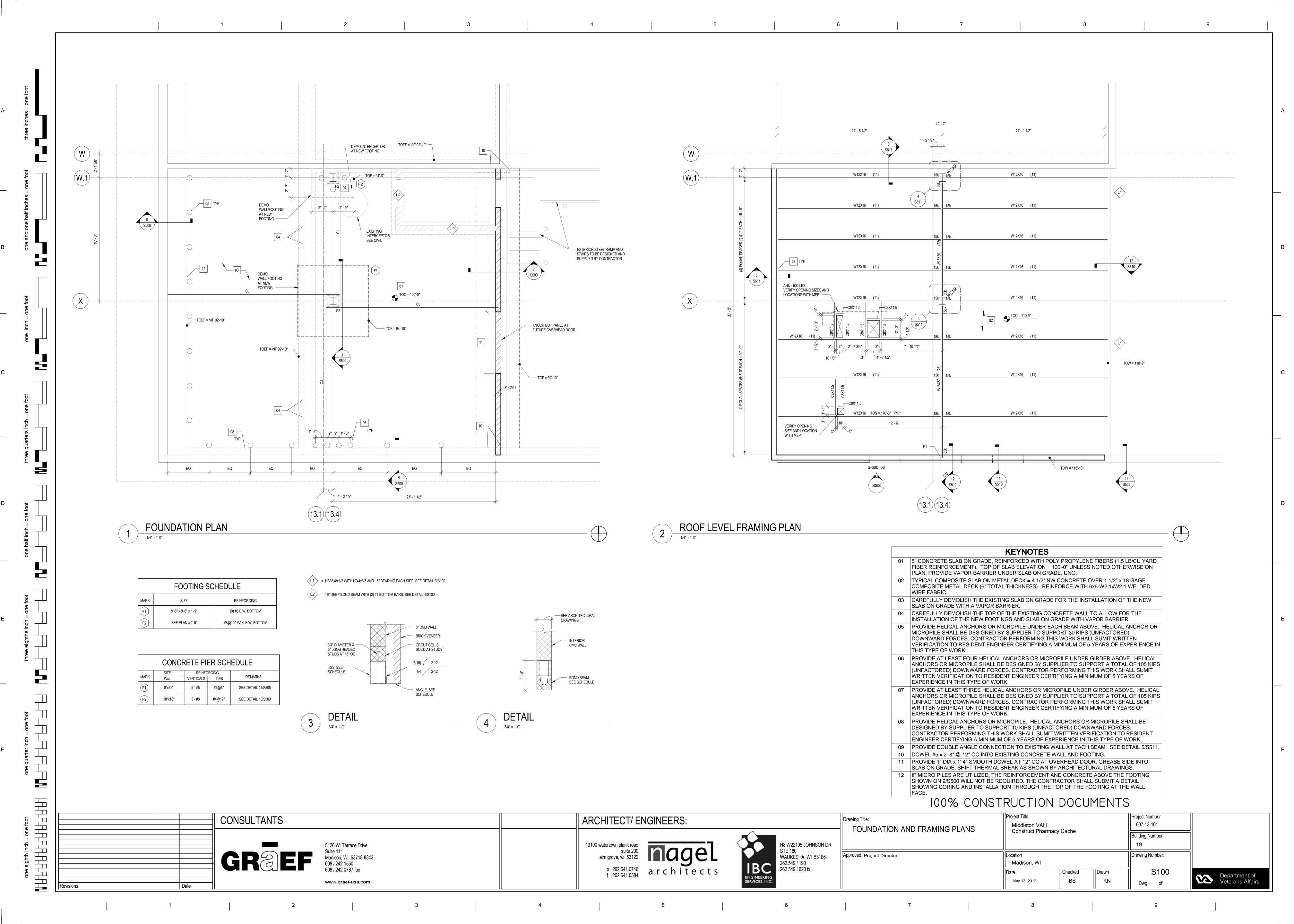
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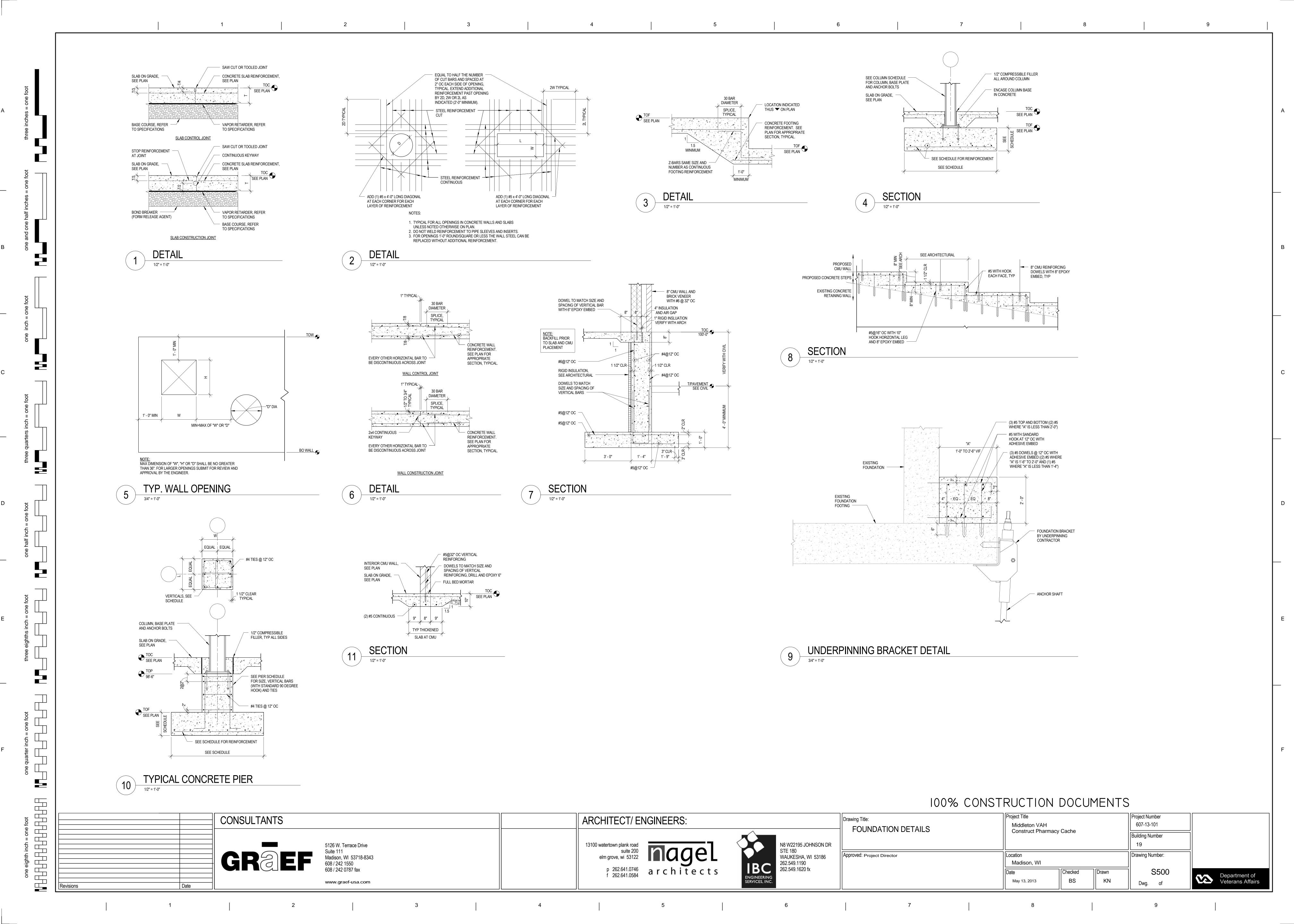
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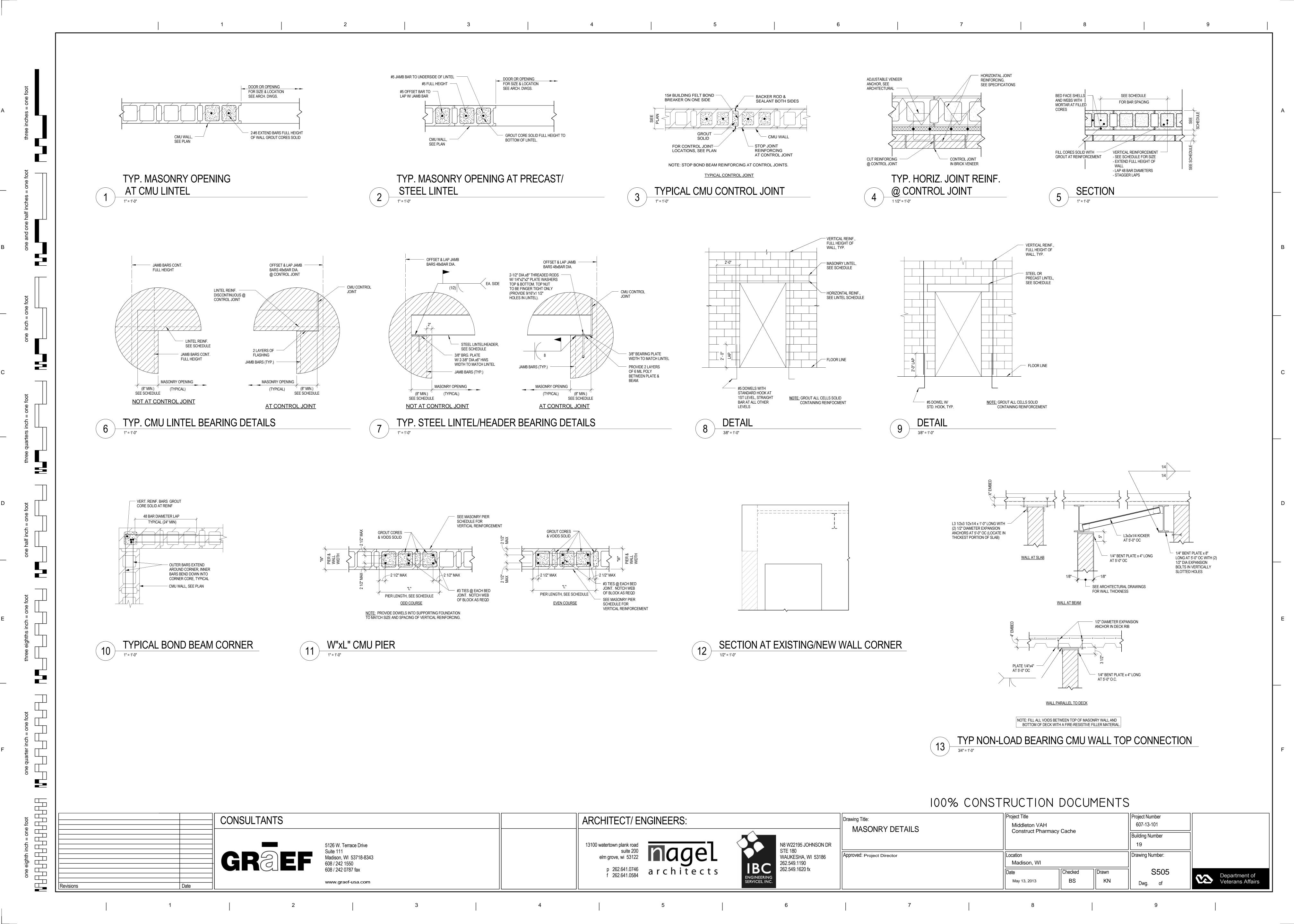
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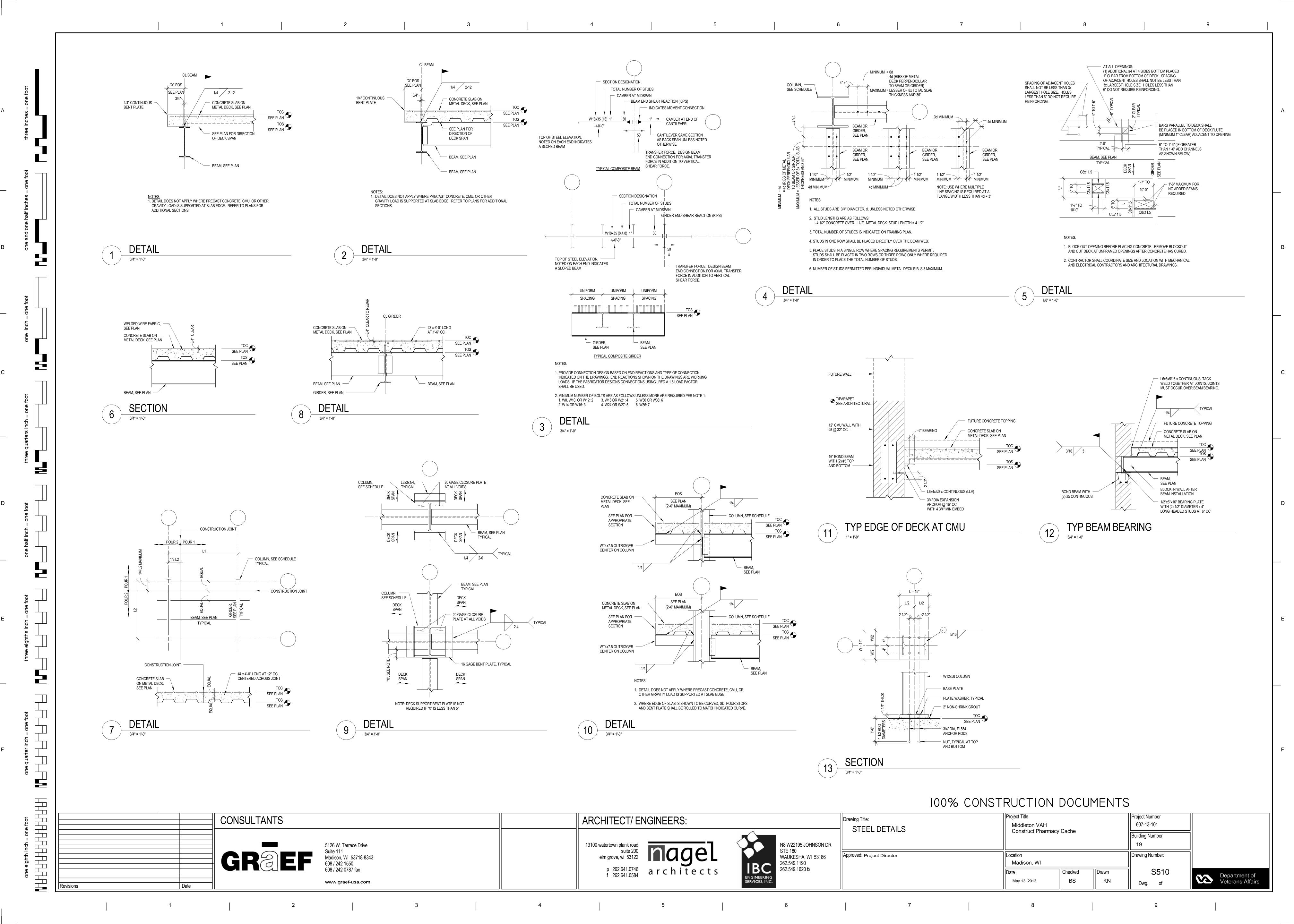
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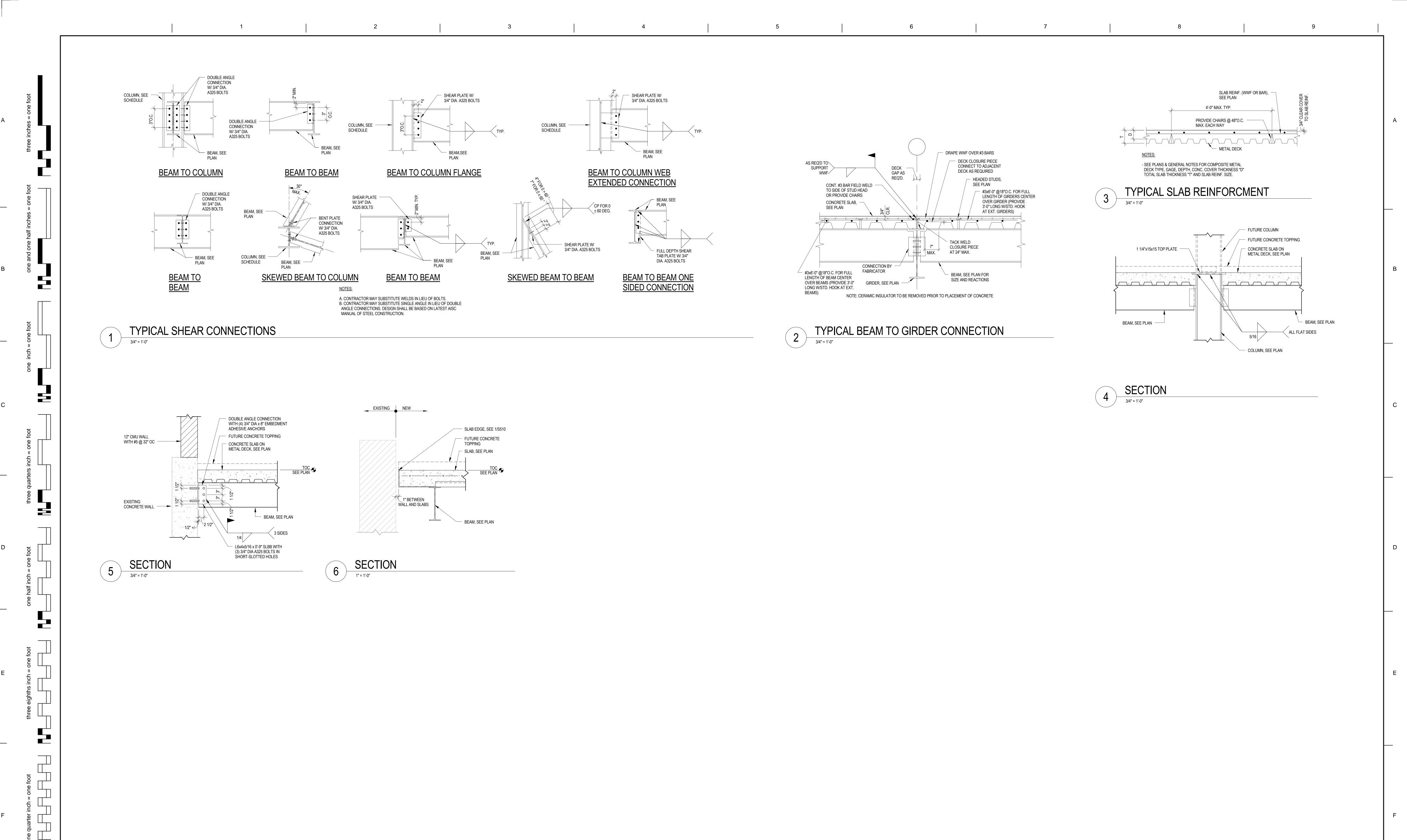
ROOF - ZONES 3





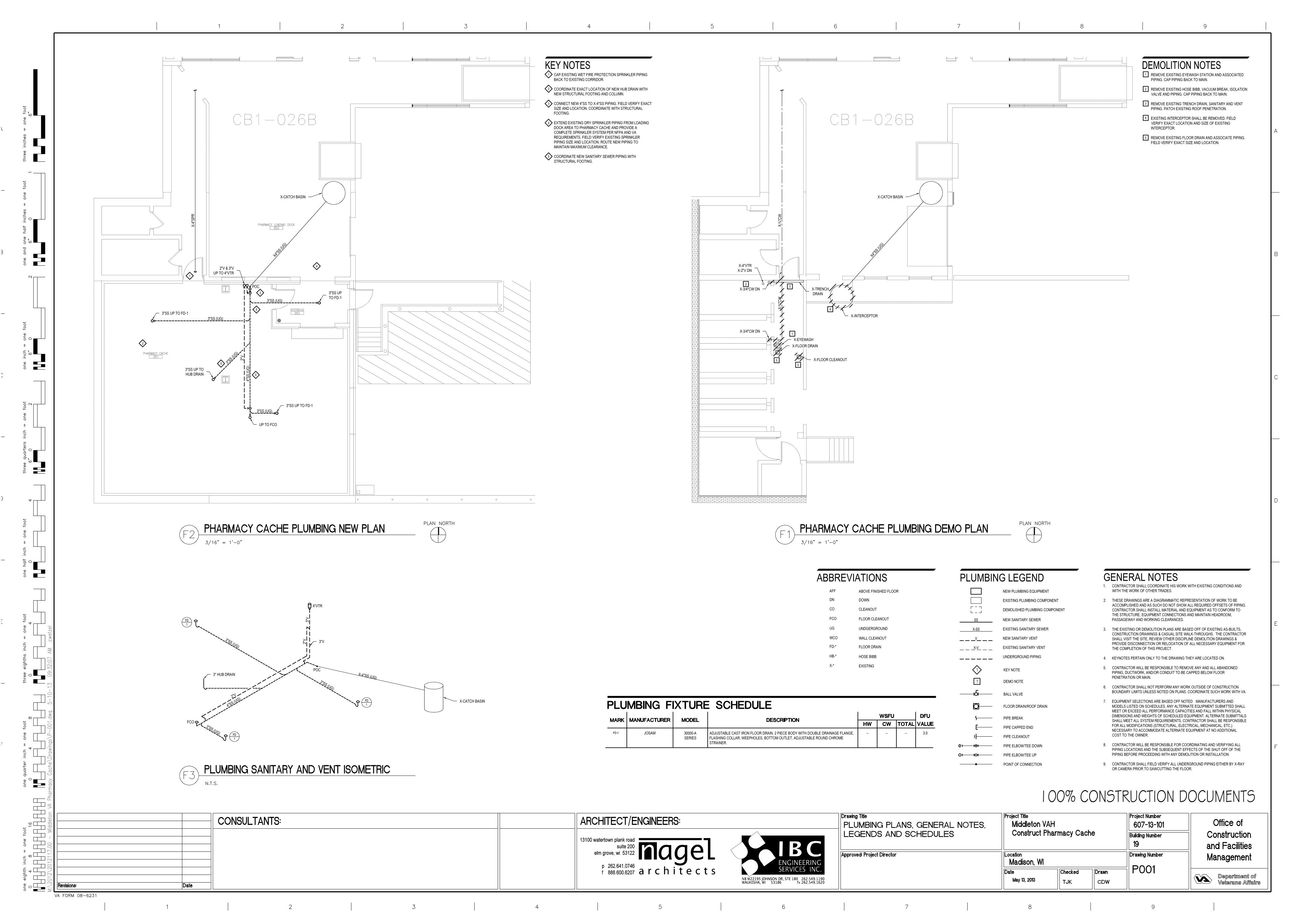


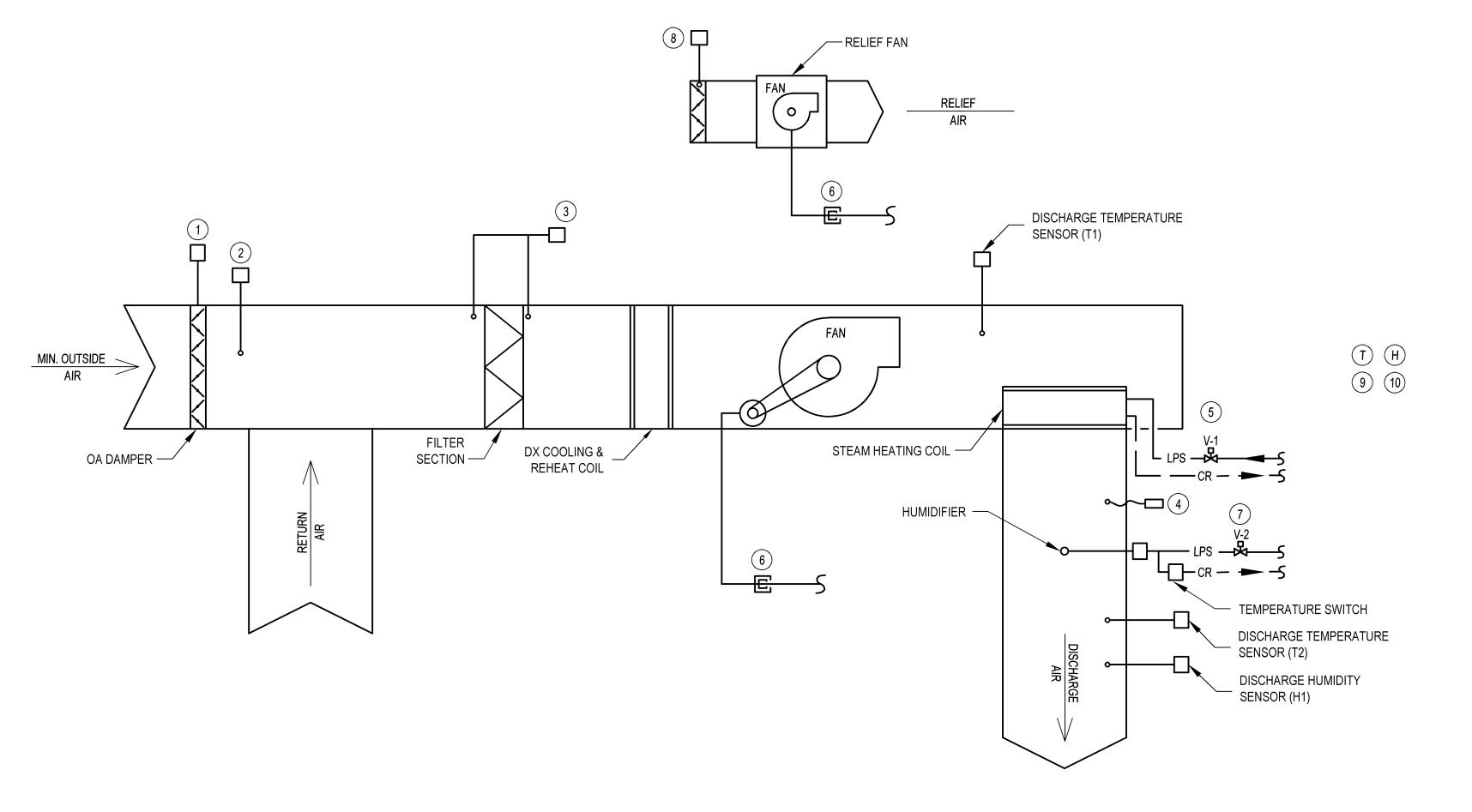




100% CONSTRUCTION DOCUMENTS

											
		CONSULTANTS		ARCHITECT/ ENGINEERS:		Drawing Title:	Project Title Middleton VAH Construct Pharmac		The state of the s	oject Number 607-13-101	
			5126 W. Terrace Drive	13100 watertown plank road	N8 W22195 JOHNSON DR	STEEL DETAILS	Construct Pharmac	y Cache	Bui	ilding Number	
井		CD2FF	Suite 111 Madison, WI 53718-8343	suite 200	STE 180 WAUKESHA, WI 53186 262.549.1190 262.549.1620 fx	Approved: Project Director	Location Madison, WI		Dra	awing Number:	
型			608 / 242 1550 608 / 242 0787 fax	p 262.641.0746 f 262.641.0584 architects	262.549.1620 fx		Date		Drawn	S511	Department of
	Revisions Date		www.graef-usa.com		SERVICES, INC.		May 13, 2013	BS	KIN	Dwg. of	Veterans Affairs





AIR HANDLING UNIT KEYED NOTES:

- (1) OA MOTORIZED DAMPER WITH END SWITCH
- 2 OA TEMPERATURE SENSOR
- (3) PRE-FILTER DIFFERENTIAL PRESSURE SENSOR
- 4 FREEZE STAT
- (5) V-1 STEAM HEATING CONTROL VALVE (WITH POSITION INDICATOR)
- (6) CURRENT SWITCH FOR FAN STATUS
- 7 V-2 HUMIDIFIER CONTROL VALVE (WITH POSITION INDICATOR)
- (8) RF MOTORIZED DAMPER (WITH END SWITCH)
- 9 SPACE TEMPERATURE SENSOR
- (10) SPACE HUMIDITY SENSOR

EXISTING CONDITIONS AND WITH THE WORK OF OTHER TRADES. 2. THESE DRAWINGS ARE A DIAGRAMMATIC REPRESENTATION OF

GENERAL NOTES

WORK TO BE ACCOMPLISHED AND AS SUCH DO NOT SHOW ALL REQUIRED OFFSETS OF PIPING. MECHANICAL CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT AS TO CONFORM TO THE STRUCTURE, EQUIPMENT CONNECTIONS AND MAINTAIN HEADROOM AND PASSAGEWAY.

1. MECHANICAL CONTRACTOR SHALL COORDINATE WORK WITH

- 3. ALL CUTTING AND PATCHING OF EXISTING STRUCTURE TO
- ACCOMMODATE NEW HVAC IS BY MECHANICAL CONTRACTOR. 4. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REINSTALLATION OF EXISTING CEILING (UNLESS WORK

PERFORMED BY GENERAL CONTRACTOR AND IDENTIFIED ON ARCHITECTURAL DRAWINGS.) REPLACE ALL DAMAGED CEILING

- 5. KEYNOTES PERTAIN ONLY TO THE DRAWING THEY ARE
- 6. DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- 7. MECHANICAL CONTRACTOR SHALL CLEAN ALL NEW DUCTWORK, COILS AND DIFFUSERS THAT ARE WITHIN PROJECT LIMITATIONS PRIOR TO COMPLETION.
- 8. ALL CONTROL WIRING SHALL BE RUN IN CONDUIT.
- 9. MAINTAIN 10' MINIMUM DISTANCE FROM OUTSIDE AIR INTAKE TO ANY EXHAUST OR TOILET VENTS.
- 10. ALL EQUIPMENT, DUCTWORK AND PIPING FITTINGS SHALL BE INSTALLED IN A MANNER WHICH VA STAFF SHALL HAVE ACCESS.
- 11. CONTRACTOR SHALL NOT PERFORM ANY WORK OUTSIDE THE CONSTRUCTION BOUNDARY LIMITS UNLESS NOTED ON PLANS.
- COORDINATE SCHEDULE OF SUCH WORK WITH VA. 12. THE EXISTING OR DEMOLITION PLANS ARE BASED OFF OF EXISTING AS-BUILTS, CONSTRUCTION DRAWINGS & CASUAL SITE

WALK-THROUGHS. THE CONTRACTOR SHALL VISIT THE SITE,

REVIEW OTHER DISCIPLINE DEMOLITION DRAWINGS & PROVIDE

EQUIPMENT FOR THE COMPLETION OF THIS PROJECT. 13. CONTRACTOR SHALL PROVIDE OFFSETS OR TRANSITIONS OF ALL DUCTWORK AND PIPING AS NECESSARY.

DISCONNECTION OR RELOCATION OF ALL NECESSARY

14. EQUIPMENT SELECTIONS ARE BASED OFF NOTED MANUFACTURERS AND MODELS LISTED ON SCHEDULES. ANY ALTERNATE EQUIPMENT SUBMITTED SHALL MEET OR EXCEED ALL PERFORMANCE CAPACITIES AND FALL WITHIN PHYSICAL DIMENSIONS AND WEIGHTS OF SCHEDULED EQUIPMENT. ALTERNATE SUBMITTALS SHALL MEET ALL SYSTEM REQUIREMENTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MODIFICATIONS (STRUCTURAL, ELECTRICAL, MECHANICAL, ETC.) NECESSARY TO ACCOMMODATE ALTERNATE EQUIPMENT

AT NO ADDITIONAL COST TO THE OWNER.

HVAC LEGEND

NEW HVAC EQUIPMENT EXISTING DUCTWORK **NEW DUCTWORK**

EXISTING MECHANICAL COMPONENT DEMOLISHED MECHANICAL COMPONENT SUPPLY AIR DUCT UP SUPPLY AIR DUCT DOWN

RETURN AIR DUCT UP RETURN AIR DUCT DOWN EXHAUST AIR DUCT UP

EXHAUST AIR DUCT DOWN (re) ELBOW WITH TURNING VANES FLEX DUCT

MOTORIZED DAMPER BACK DRAFT DAMPER BALANCING DAMPER AIR FLOW INDICATOR

DOOR UNDER CUT NEW SUPPLY DIFFUSER NEW RETURN/EXHAUST GRILLE

NEW RETURN/EXHAUST GRILLE WITH DAMPER **HUMIDITY SENSOR**

THERMOSTAT DUCT SMOKE DETECTOR CONTROL WIRE

-·-·-KEY NOTE

DEMO NOTE

PIPING LEGEND

NEW SUPPLY PIPING (ALL SYSTEM TYPES) EXISTING SUPPLY PIPING (ALL SYSTEM TYPES) — — — — NEW RETURN PIPNG PIPING (ALL SYSTEM TYPES) EXISTING RETURN PIPNG PIPING (ALL SYSTEM TYPES) ——— CHECK VALVE CIRCUIT SETTER 2-WAY ELECTRONIC CONTROL VALVE PIPE BREAK PIPE CAPPED END PIPE ELBOW/TEE DOWN OI PIPE ELBOW/TEE UP POINT OF CONNECTION

ABBREVIATIONS

AD — ACCESS DOOR — ABOVE FINISHED FLOOR — ACCESS PANEL BOD — BOTTOM OF DUCT — BOTTOM OF PIPE — CONDENSATE DRAIN — CUBIC FEET PER MINUTE — CONTROL PANEL — CONDENSATE DRAIN — DOWN — EXHAUST AIR — MINIMUM — MAXIMUM LPS — LOW PRESSURE STEAM

— OUTSIDE AIR

— RETURN AIR

S/D — START / DISCONNECT

SA — SUPPLY AIR

— LOW PRESSURE CONDENSATE RETURN

100% CONSTRUCTION DOCUMENTS Project Title
Middleton VAH Drawing Title CONSULTANTS: ARCHITECT/ENGINEERS: Office of MECHANICAL GENERAL NOTES, 607-13-101 Construct Pharmacy Cache LEGENDS, CONTROL DIAGRAM Construction Building Number AND POINTS and Facilities Approved: Project Director Drawing Number Management Madison, WI p 262.641.0746 f 888.600.6207 **a r c h i t e c t s** M001 Checked Department of Veterans Affairs N8 W22195 JOHNSON DR, STE 180 262.549.1190 WAUKESHA, WI 53186 fx 262.549.1620 TJK CDW

PACKAGED ROOFTOP AIR HANDLING UNIT

NO SCALE

SYSTEM CONSISTS OF A CONSTANT VOLUME AIR HANDLING UNIT AND RELIEF FAN. AIR HANDLING UNIT CONSISTS OF: SUPPLY FAN, DX COOLING COIL, STEAM HEATING COIL, HOT GAS REHEAT COIL AND MERV 8 & MERV 13 FILTERS.

SUPPLEMENTAL SUB-SYSTEMS ARE: STEAM HUMIDIFIER AND RELIEF FAN. AIR HANDLING UNIT CONTROLLER SHALL NOT ALLOW SIMULTANEOUS HEATING AND COOLING EXCEPT FOR HUMIDITY

PROVIDE ROOM THERMOSTAT, SENSORS AND OTHER CONTROL COMPONENTS IN ACCORDANCE WITH THE DDC CONTROL POINTS LIST.

SYSTEM SHOULD BE EXTENSION OF THE EXISTING TRIDIUM BAS CONTROL UTILIZING BACNET CONTROL DEVICES WITH FULL INTEGRATION WITH EXISTING OPERATOR INTERFACE. PROVIDE NEW GRAPHICS, TREND LOGS, ETC.

AIR HANDLING UNIT OPERATION START/STOP SUPPLY FAN. SUPPLY FAN SHOULD RUN CONTINUOUSLY.

RELIEF FAN OPERATION

one eighth inch = one foot

0 4 8 16

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RUN RELIEF FAN SHALL BE INTERLOCKED WITH AIR HANDLING UNIT AND SHALL RUN CONTINUOUSLY. RELIEF FAN SHALL BE "OFF" WHEN AIR HANDLING UNIT IS SHUT DOWN OR WHEN START SWITCH IS MANUALLY TURNED OFF FOR MAINTENANCE.

MECHANICAL HEATING (OA TEMPERATURE BELOW 65°F)

ON DEMAND FOR HEATING, MODULATE STEAM HEATING COIL CONTROL VALVE (V-1) TO MAINTAIN DISCHARGE AIR TEMPERATURE (T2) (RESET BASED ON SPACE TEMPERATURE). DX COOLING SYSTEM SHALL BE SHUT DOWN. WHEN SPACE TEMPERATURE IS SATISFIED FOR HEATING AND IN COOLING DEMAND, RESET DISCHARGE AIR TEMPERATURE SET POINT TO MINIMUM (55°F ADJUSTABLE). PROVIDE HIGH/LOW SPACE AND DISCHARGE AIR TEMPERATURE

MECHANICAL COOLING (OA TEMPERATURE ABOVE 70°F)

ON DEMAND FOR COOLING, DX COOLING SHALL BE ENERGIZED AND CONDENSING UNIT COMPRESSOR SHALL MODULATE TO MAINTAIN DISCHARGE AIR TEMPERATURE (T2) (55°F ADJUSTABLE). STEAM CONTROL VALVE (V-1) AND HUMIDIFIER CONTROL VALVE (V-2) SHALL BE CLOSED. WHEN SPACE TEMPERATURE IS SATISFIED FOR COOLING, RESET DISCHARGE ARE TEMPERATURE TO MAXIMUM (72°F ADJUSTABLE). PROVIDE HIGH/LOW SPACE AND DISCHARGE AIR TEMPERATURE ALARMS.

<u>HUMIDIFICATION</u> (SPACE HUMIDITY BELOW SET POINT)

ACTIVATE HUMIDIFICATION ON DEMAND FROM SPACE HUMIDITY SENSORS (SET AT 35% ADJUSTABLE) MINIMUM. MODULATE STEAM CONTROL VALVE (V-2) TO MAINTAIN DISCHARGE SPACE HUMIDITY PROPORTIONAL TO DEVIATION OF SPACE HUMIDITY FROM SET-POINT. DISABLE HUMIDIFICATION DURING MECHANICAL COOLING MODE. PROVIDE DISCHARGE HUMIDITY CONTROLLER TO MAINTAIN MAXIMUM DISCHARGE AIR HUMIDITY SET AT (80% ADJUSTABLE). CLOSE STEAM CONTROL VALVE IF SUPPLY FAN IS NOT RUNNING. PROVIDE HIGH/LOW SPACE AND DISCHARGE AIR HUMIDITY ALARMS. HUMIDITY CONTROL VALVE SHALL BE INTERLOCKED WITH TEMPERATURE SWITCH ON CONDENSATE RETURN TO KEEP HUMIDIFIER "OFF" UNTIL CONDENSATE APPROACHES STEAM TEMPERATURE.

4

<u>DEHUMIDIFICATION</u> (SPACE HUMIDITY ABOVE SET POINT)

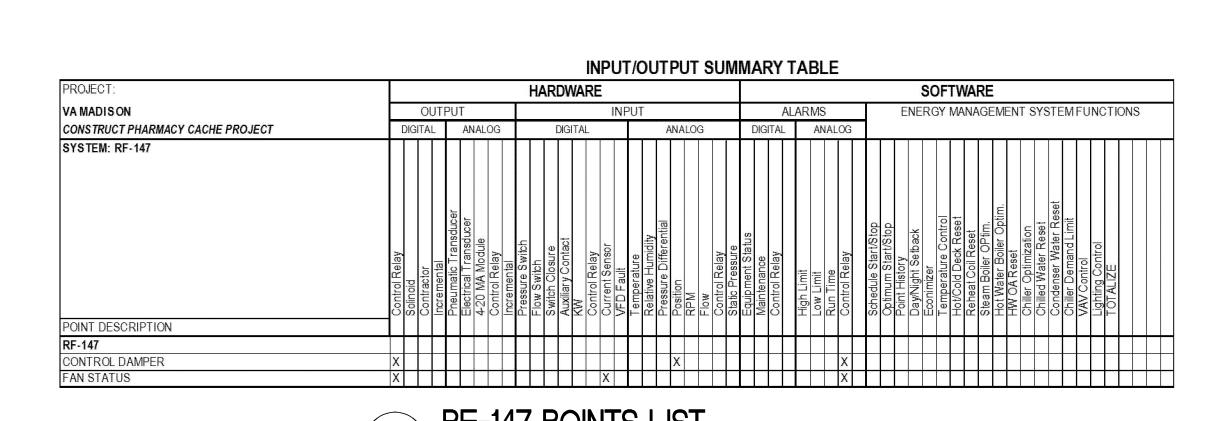
ON DEMAND FOR DEHUMIDIFICATION (BASED ON SPACE HUMIDITY SENSOR) INTERNAL CONTROL SHALL ACTIVATE COOLING AND HOT GAS REHEAT TO MAINTAIN SPACE TEMPERATURE AND HUMIDITY.

SAFETY (SYSTEMS SHUT-DOWNS)

SHUT DOWN AIR HANDLER ON THE FAILURE OF THE MAJOR COMPONENTS SUCH AS SUPPLY OR RELIEF FAN AND

DURING SHUT-DOWN, SHUT-DOWN SUPPLY AND RELIEF FANS, CLOSE OUTSIDE AIR DAMPERS, CLOSE RELIEF AIR DAMPERS AND CLOSE ALL CONTROL VALVES.

IF SPACE TEMPERATURES ARE OUTSIDE HIGH/LOW LIMIT SET POINTS, SYSTEM SHALL SHUTDOWN.



INPUT/OUTPUT SUMMARY TABLE HARDWARE SOFTWARE ENERGY MANAGEMENT SYSTEM FUNCTIONS CONSTRUCT PHARMACY CACHE PROJECT SYSTEM: AHU-147 POINT DESCRIPTION SUPPLY FAN (NOTE 1) SCHARGE AIR SENSOR (T1 & T2 SCHARGE HUMIDITY SENSOR (H1) ITSIDE AIR SPACE TEMPERATURE SPACE HUMIDITY MOTORIZED DAMPERS (RF AND OA) HEATING VALVE (V-1) HUMIDIFIER VALVE (V-2) HUMIDIFIER CONDENSATE RETURN FILTER (NOTE 1) REEZE STAT IOT GAS REHEAT (NOTE 1 'ARIABLE SPEED COMPRESSOR (NOTE 1) NOTE 1: AVAILABLE FROM AHU CONTROL BOARD

AHU-147 POINTS LIST

PLAN DESIGNATION	ST-1
MANUFACTURER	B&G
MODEL	B1-3/4"
SIZE	3/4
CAPACITY - LBS/HR	500
PRESSURE DIFFERENTIAL - PSI	1/2
MAX OPERATING TEMPERATURE - F	406
MAX OPERATING PRESSURE - PSIG	175
SELECTION BASED ON B&G INVERTED BUCKET TRAP	-

PLAN DESIGNATI	ON	S-1	R-1	E-1
MANUFACTURER		TITUS	TITUS	TITUS
MODEL		300FL	350FL	350FL
CONSTRUCTION	TYPE	GRILLE	GRILLE	GRILLE
	MOUNTING	DUCT	DUCT	DUCT
	MATERIAL	ALUMINUM	ALUMINUM	ALUMINUN
CFM		300	1,200	430
GRILLE SIZE		12" x 8"	24" x 12"	12" x 12"
DUCT CONNECTION	ON SIZE	12" x 8"	24" x 12"	12" x 12"
NC		17	28	: -
REMARKS		1,2,3,4	1,2,3	1,2,3

3. PROVIDE WITH OPPOSED BLADE DAMPER 4. PROVIDE WITH 22.5 DEGREE DEFLECTION BLADES

	HUMIDIFIER	
PLAN DESIGNA	ATION	H-1
MANUFACTURE	R	DRI-STEEM
MODEL		ULTRA-SORB LI
TYPE		STEAM
SERVICE		AHU-147
AIR	FLOW RATE - CFM	1,200
	ENTERING DB TEMP - °F	55.0
	ENTERING RH%	20.0
	LEAVING DB TEMP - °F	55.0
ROOM	ROOM TEMP - °F	72.0
CONDITIONS	LEAVING RH %	35.0
STEAM	FLOW RATE - LBS/HR	39.0
	STEAM PRESSURE - PSI	5.0
NUMBER SIZE -	· IN	3
STRAINER SIZE	- IN	3/4
INLET - NPT		1/2
CONTROL		ELECTRONIC
ABSORTION DI	STANCE (VAPOR TRAIL)	14"
FACE DIMENSI	ONS (WxH) IN	24x 18
4 SELECTIONS DASE	D ON DDI STEEM HILMIDIEIED	

BELECTIONS BASED ON DRI-STEEM HUMIDIFIER	
PROVIDE TEMPERATURE SWITCH	
STEAM PRESSURE AT VALVE IS 4.0 PSI	

PLAN DESIGNAT	TON	RF-147
MANUFACTURE	?	GREENHEC
MODEL		G-095-VG
FAN TYPE		ROOF MOUNT
SERVES		PHARMACY CAC
LOCATION		ROOF
FAN	CFM	430
	ESP (IN.W.C.)	0.8
	DRIVE	DIRECT
	MAX RPM	1,725
	NOM. FAN MOTOR (HP)	1/6
	VOLTAGE/PHASE	115 / 1
CABINET	SIZE (DIAxH) IN	21.8x 14.6
	WEIGHT (LBS)	60
SOUND POWER	1ST OCTAVE	82
MAX VALUES	2ND OCTAVE	80
(INTAKE)	3RD OCATVE	73
	4TH OCTAVE	67
	5TH OCTAVE	64
	6TH OCTAVE	59
	7TH OCTAVE	50
	8TH OCTAVE	47
	SONES	10.7
REMARKS		1 THRU 4

3. PROVIDE WITH ROOF CURB

4. PROVIDE WITH VARIGREEN SPEED CONTROLLER

CABINET SIZE (H x W
WEIGHT - LBS
REMARKS

2. PROVIDE WITH DX COOLING COIL

4. PROVIDE WITH 2" & 4" PLEATED FILTERS

6. SEE 23 81 00 FOR FURTHER FEATURES

3. PROVIDE WITH VARIABLE CAPACITY COMPRESSOR

5. PROVIDE WITH 48" CURB WITH (2) ACCESS DOORS

KEY NOTES

PROVIDE SPLASH BLOCK.

OUTSIDE AIR INTAKE HOOD FOR ROOFTOP UNIT SHALL BE MIN. 10 FT AWAY FROM EXHAUST FAN.

FIELD VERIFY EXACT LOCATION OF ALL NEW EQUIPMENT ON ROOF WITH STRUCTURAL BEAMS.

3 INSTALL COOLING COIL CONDENSATE WASTE FROM ROOFTOP UNIT PER MANUFACTURER'S RECOMMENDATION.

DISCHARGE CONDENSATE WASTE ONTO ROOF AND

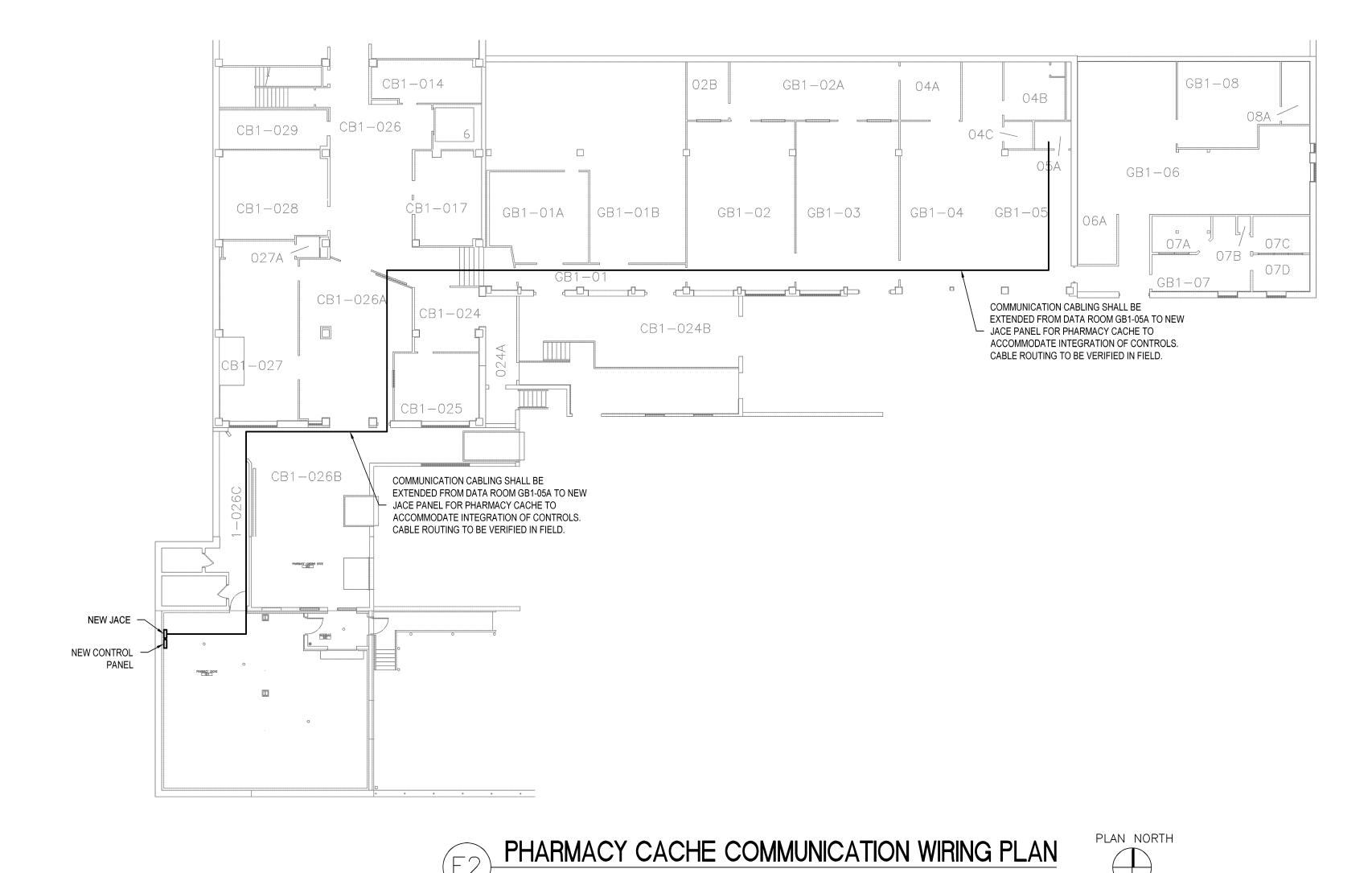
REFER TO DETAIL 1 ON SHEET M-200 FOR STEAM COIL AND HUMIDIFIER CONNECTIONS.

PLAN DESIGN	NATION	AHU-147
MANUFACTUR	RER	AAON
MODEL		RQ SERIES
SIZE		4
LOCATION		PHARMACY CACH
MOUNTING		ROOF
HEATING	SUPPLY - CFM	1,200
	OUTSIDE AIR - CFM	430
	CAPACITY - MBH	66.7
	ENTERING AIR TEMP - °F	41.3
	LEAVING AIR TEMP - °F	90.1
STEAM	PRESSURE - LBS	5
	CONDENSATE - LBS/HR	72.4
COOLING	CFM	1,200
(DX COIL)	TOTAL CAPACITY - MBH	50.3
	SENSIBLE CAPACITY - MBH	37.3
	ENTERING AIR TEMP - °F DB	82.2
	ENTERING AIR TEMP - °F WB	67.1
	LEAVING AIR TEMP - °F DB	52.9
	LEAVING AIR TEMP - °F WB	52.7
	SEER	15.7
FAN	ESP - IN	1.05
	RPM	1,750
	MOTOR HP	1
	FLA	26
	VOLTS/PHASE	208/3
CABINET SIZE	E (H x W x D)	45x44x82.5
WEIGHT - LBS	3	850
REMARKS		1,2,3,4

VENTILATION SCHEDULE

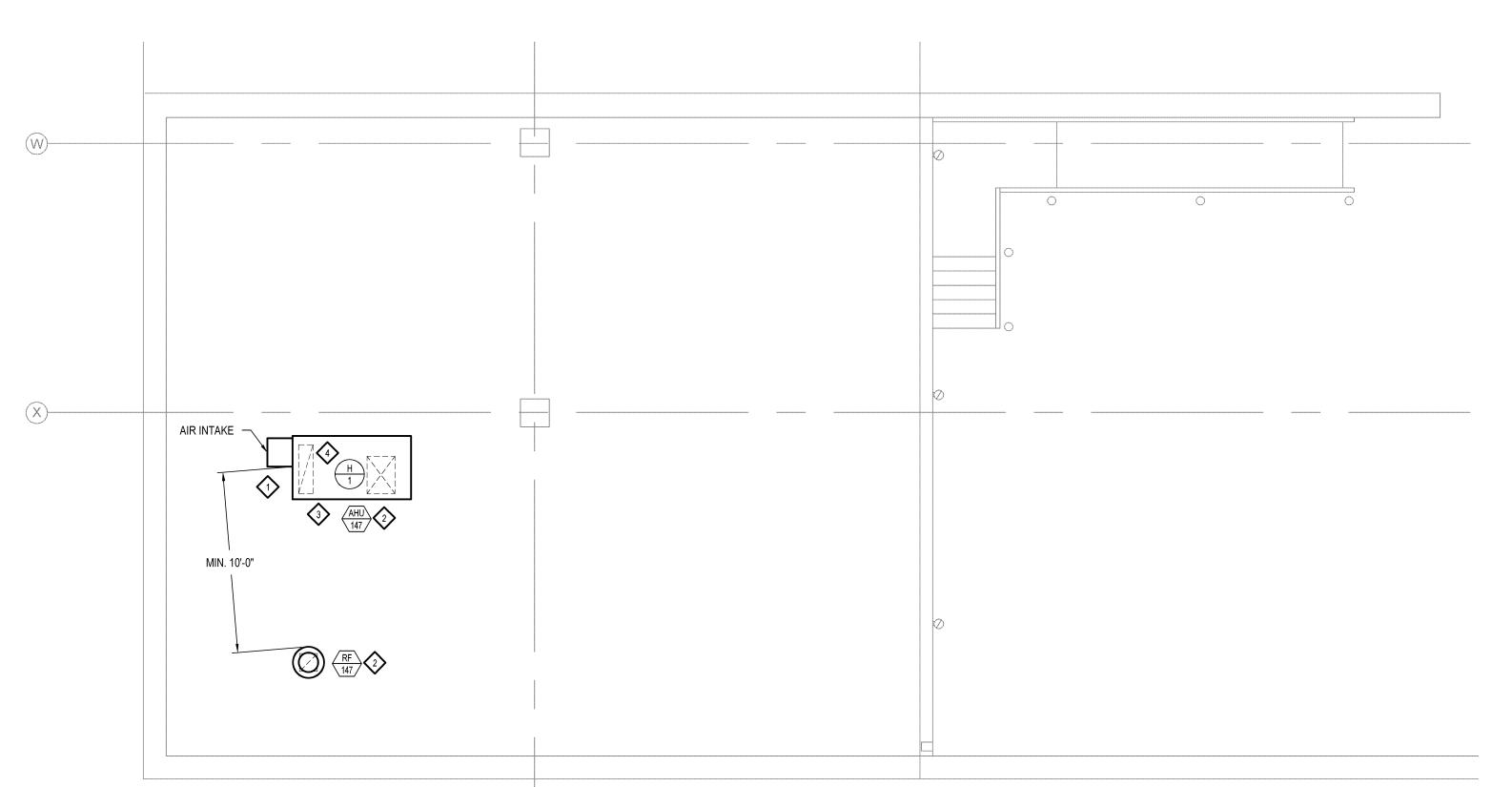
NA=NOT APPLICABLE

BLDG	LEVEL	ROOM	ROOM USE	AREA	ACH REQ'D	ACH REQ'D	CFM REQ'D	CFM REQ'D	CFM REQ'D	ROOM AIR	CFM P	ROVIDED
		NAME		SQ FT	SUPPLY	OUTSIDE AIR	SUPPLY	OUTSIDE AIR	CALCS	BALANCE	SUPPLY	OUTSIDE All
19	GROUND	PHARMACY CACHE	WAREHOUSE	1603	4	2	855	427	770	NEUTRAL	1,200	430



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VA FORM 08-623



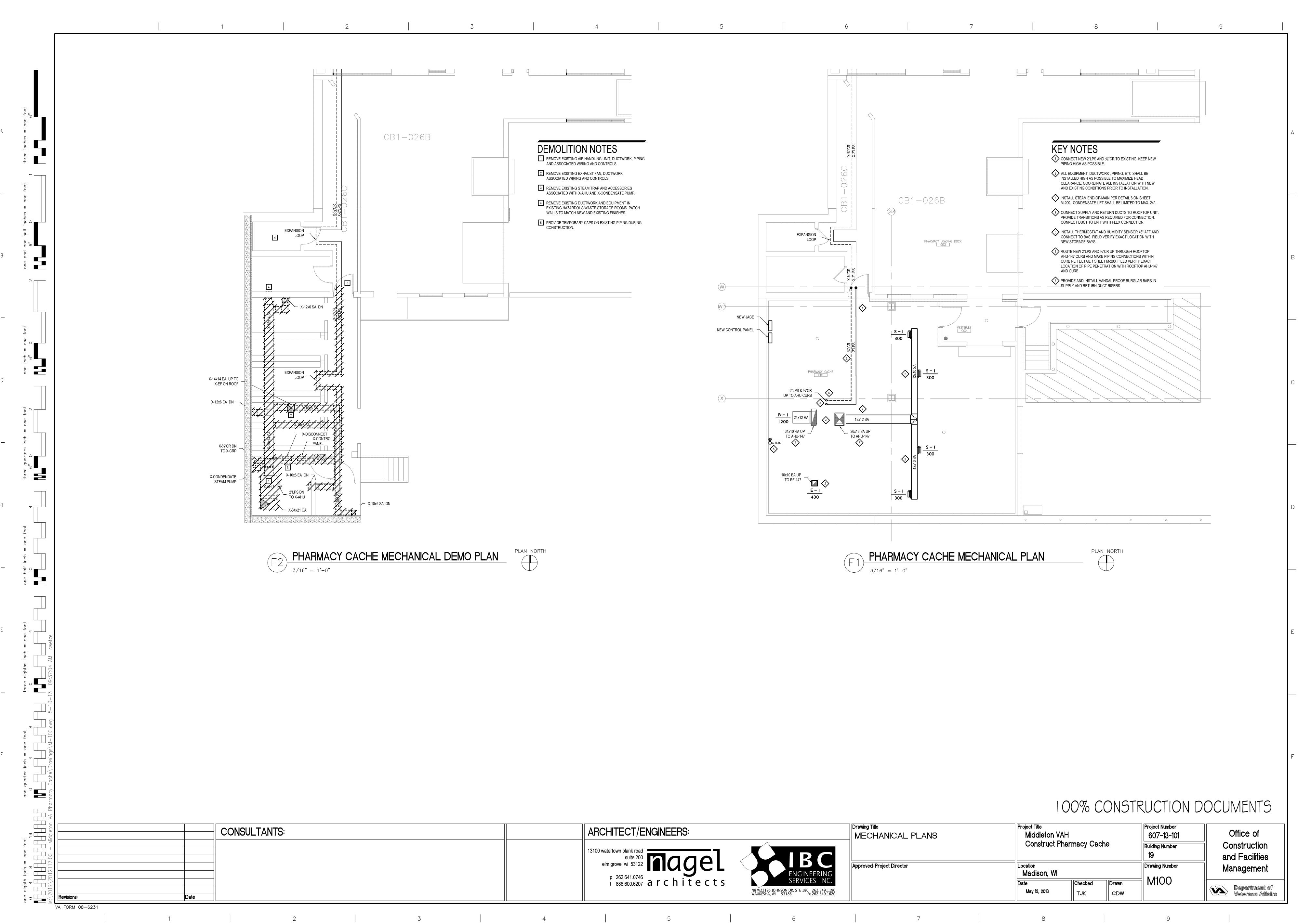
PHARMACY CACHE MECHANICAL ROOF PLAN 3/16" = 1'-0"

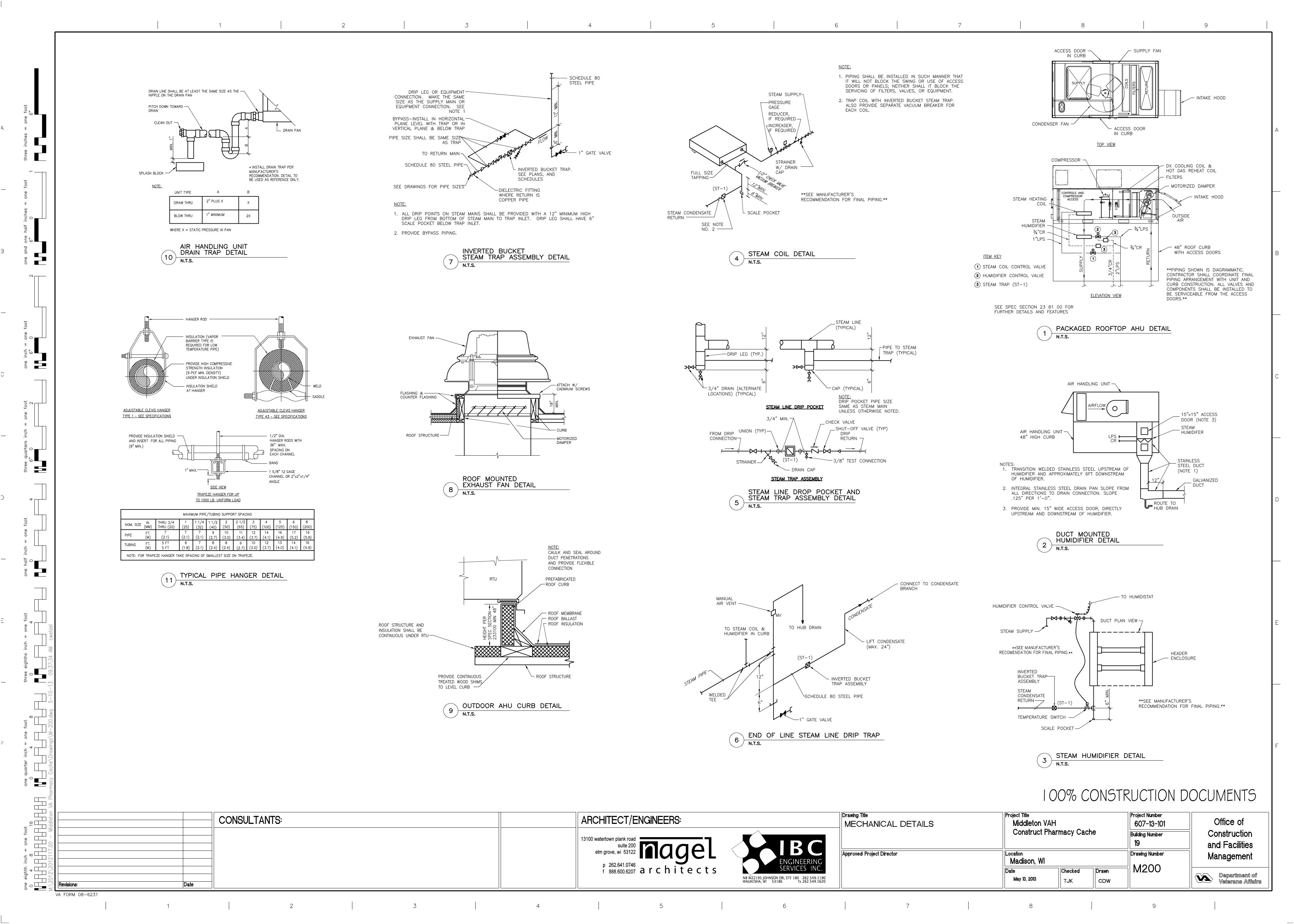
100% CONSTRUCTION DOCUMENTS

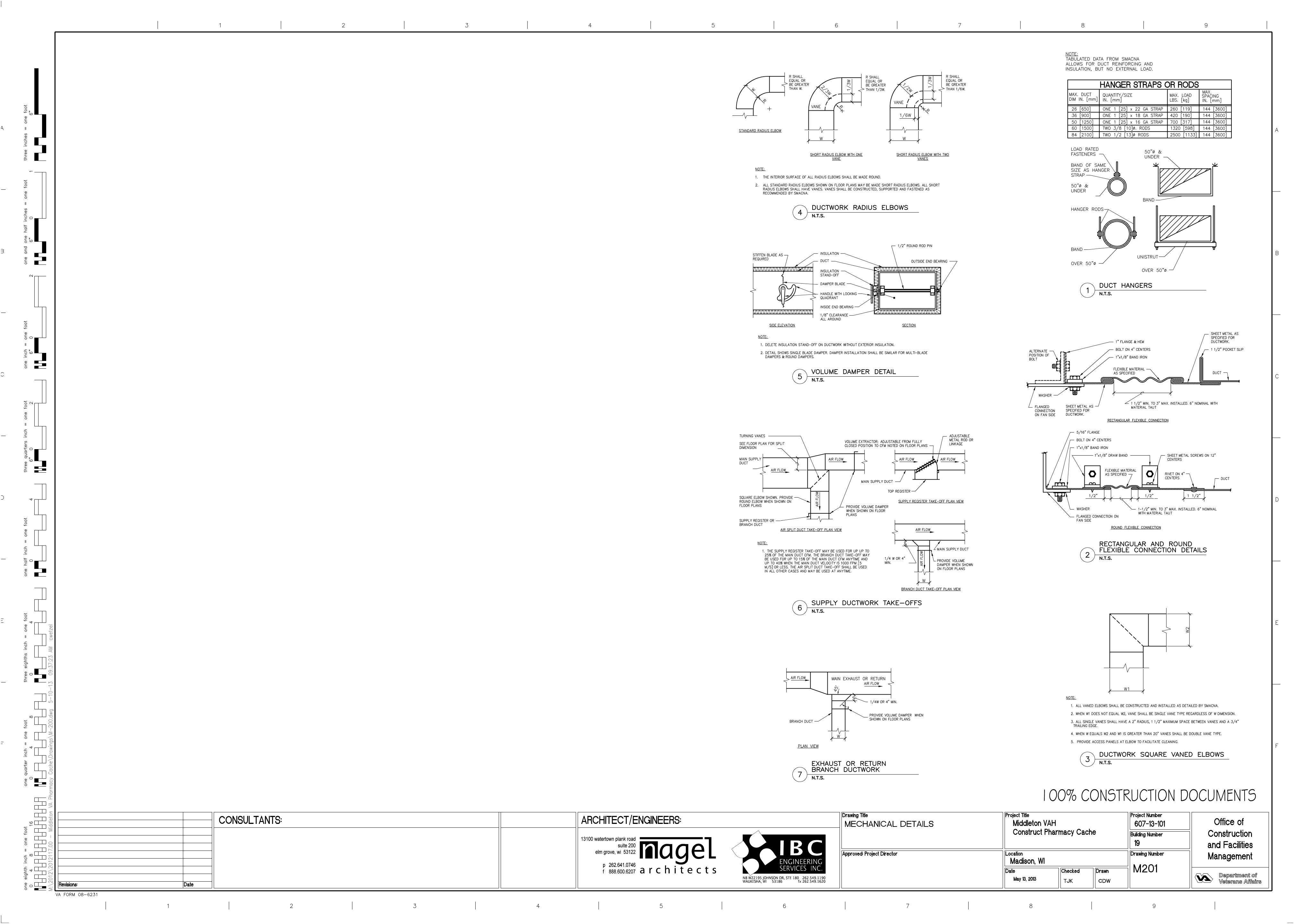
Drawing Title

MECHANICAL SCHEDULES, Project Title

Middleton VAH CONSULTANTS: ARCHITECT/ENGINEERS: Office of 607-13-101 Construct Pharmacy Cache ROOF PLAN AND COMMUNICATIONS Construction Building Number WIRING PLAN and Facilities Approved: Project Director Drawing Number Management Madison, WI p 262.641.0746 f 888.600.6207 architects M002 Checked Department of Veterans Affairs N8 W22195 JOHNSON DR, STE 180 262.549.1190 WAUKESHA, WI 53186 fx 262.549.1620 CDW TJK









NON-FUSED DISCONNECT SECURITY ELECTRIC STRIKE FUSED DISCONNECT SECURITY MAG LOCK MAGNETIC STARTER SECURITY DOOR CONTACTOR COMBINATION STARTER $\square \! \! \vee$ SECURITY CAMERA MOTOR SECURITY PAN, TILT, ZOOM CAMERA FIRE ALARM PULL STATION CARD ACCESS READER; LETTER INDICATES AS FOLLOWS: <u>M=MOUNT</u> C-CEILING D-DESK F-FLUSH H-HIDDEN FIRE ALARM SPEAKER STROBE M-MULLION P-PEDESTAL FIRE ALARM HEAT DETECTOR S-SURFACE W-WALL T=TECHNOLOGY/TYPE B-BARCODE F-ELEV. FLOOR CALL H-ELEV. HALL CALL M-MAG STRIP P-PROXIMITY S-SMART CARD T-TOKEN FIRE ALARM SMOKE DETECTOR FIRE ALARM DUCT DETECTOR MOTION DETECTOR; LETTER INDICATES AS FOLLOWS: M=MOUNT C-CEILING D-DESK F-FLUSH H-HIDDEN FIRE ALARM CONTROL MODULE M-MULLION P-PEDESTAL R-RACK S-SURFACE W-WALL FIRE ALARM MONITOR MODULE T=TECHNOLOGY/TYPE D-DUAL TECHNOLOGY IR-INFRARED M-MICROWAVE FIRE ALARM FLOW SWITCH U-ULTRASONIC X-REQUEST-FOR-EXIT FIRE ALARM TAMPER SWITCH PUSH BUTTON; LETTER INDICATES AS FOLLOWS: M=MOUNT C-CEILING D-DESK F-FLUSH H-HIDDEN WALL MOUNTED SPEAKER M-MULLION P-PEDESTAL S-SURFACE W-WALL T=TECHNOLOGY/TYPE B-BELL PUSH D-DURESS P-PANIC R-DOOR RELEASE X-REQUEST-FOR-EXIT

ELEC	CTRICAL ABBREVIATION	IS	
1P 1PH 2P 2W 3P 3PH 3W 4W	SINGLE POLE SINGLE PHASE TWO POLE TWO WIRE THREE POLE THREE PHASE THREE WIRE FOUR WIRE	MAG MAN MAX MC MCA MIN MOCP MLO MTD	MAGNETIC STARTER MANUAL STARTER MAXIMUM MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPACITY MINIMUM MAXIMUM OVERCURRENT PROTECTION MAIN LUG ONLY MOUNTED
A AFF AHJ AIC AMP AUTO	AMPERE ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION AMPERE INTERRUPTING CAPACITY AMPERE AUTOMATIC	MTG NAC NEC NFSS NU	MOUNTING NOTIFICATION APPLIANCE CIRCUIT NATIONAL ELECTRICAL CODE NON-FUSED SAFETY SWITCH NEAR UNIT
BLDG BKR	BUILDING BREAKER	OS OU	OCCUPANCY SENSOR ON UNIT
C CAT CB CD CKT CLG CP CS	CONDUIT CATALOG CIRCUIT BREAKER CANDELA CIRCUIT CEILING CONTROL PANEL COMBINATION STARTER	P PC PH PNL PVC PW PWR	POLE PLUMBING CONTRACTOR PHASE PANEL POLYVINYL CHLORIDE (PLASTIC) PRE-WIRED POWER
CU DEMO DISC DIST DN	COPPER DEMOLITION DISCONNECT DISTRIBUTION DOWN	RECPT RM REQ'D SD SF	RECEPTACLE ROOM REQUIRED SMOKE DETECTOR OR SMOKE DAMPER SQUARE FOOT (FEET)
EBU EC EMER EMT ERL ES ETR	EMERGENCY BATTERY UNIT ELECTRICAL CONTRACTOR EMERGENCY ELECTRICAL METALLIC TUBING EXISTING TO BE RELOCATED ELECTRIC STRIKE EXISTING TO REMAIN	SW TYP V VA VFD	SWITCH TYPICAL VOLT VOLT AMPERE VARIABLE FREQUENCY DRIVE
FACP FLA FSS	FIRE ALARM CONTROL PANEL FULL LOAD AMPERE FUSED SAFETY SWITCH	W WAP WP	WATT OR WIRE WIRELESS ACCESS POINT WEATHERPROOF
GC GFI / GFCI GND	GENERAL CONTRACTOR GROUND FAULT CIRCUIT INTERRUPTER GROUND	X- XFMR	EXISTING TRANSFORMER
HP	HORSE POWER		
IMC IU	INTERMEDIATE METALLIC CONDUIT IN UNIT		
K KW	KEY OPERATED KILOWATT		
LED LF LTG	LIGHT EMITTING DIODE LINEAR FOOT (FEET) LIGHTING		

- 1. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, LOCAL CODES, FEDERAL AND STATE REGULATIONS, AND ALL REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
- 2. THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE FULL EXTENT OF WORK, AND PROJECT CONDITIONS, AND SHALL BE FAMILIAR WITH THE LOCAL CONDITIONS AND CODES RELATING TO THE WORK. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT.
- 3. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IN WRITING OF ANY EQUIPMENT, MATERIALS, INSTALLATIONS, ETC., THAT ARE DEFICIENT OR IN VIOLATION OF LOCAL CODES AND REGULATIONS.
- 4. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL, LABOR, EQUIPMENT, DEVICES, FIXTURES, SERVICE REQUIREMENTS, ETC., NECESSARY FOR A COMPLETE AND FULLY OPERATIONAL ELECTRICAL SYSTEM/INSTALLATION.
- 5. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH THESE DRAWINGS. WHERE MORE STRINGENT REQUIREMENTS ARE SET FORTH BY THE ARCHITECTURAL DRAWINGS OR LOCAL CODES AND REGULATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. ANY DEVIATIONS FROM THESE DRAWINGS SHALL BE RECORDED AND PROVIDED IN WRITING TO THE ARCHITECT AND ENGINEER.
- 6. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND THE CONTRACTOR SHALL INSTALL EQUIPMENT TO MEET THE FIELD CONDITIONS WITH COORDINATION FROM APPROVED SHOP DRAWINGS.
- 7. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RESPECTIVE TRADES AND VERIFY LOCATIONS AND REQUIREMENTS FROM THE ARCHITECTURAL DRAWINGS, FIELD MEASUREMENTS AND SUPPLIER SHOP DRAWINGS.
- 8. THE CONTRACTOR SHALL CHECK ALL DRAWINGS AND SPECIFICATIONS OF OTHER TRADES AND INCLUDE IN THEIR BID ANY ADDITIONAL WORK REQUIRED BY THIS
- 9. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL LIGHT SWITCHES, POWER, AND COMMUNICATIONS OUTLETS. ALL OUTLETS SHALL BE MOUNTED VERTICALLY UNLESS OTHERWISE NOTED. COORDINATE ALL FINAL DEVICE REQUIREMENTS WITH ARCHITECT PRIOR TO

INSTALLATION.

- 10. ALL CONDUITS SHOULD BE SUPPORTED IN COMPLIANCE WITH CODE REQUIREMENTS AND INSTALLED IN A MANNER AS TO AFFORD MINIMUM INTERFERENCE WITH OTHER TRADES. ALL CONDUITS ABOVE CEILING SHALL BE RIGIDLY SUPPORTED BY SUITABLE HANGERS FROM THE STRUCTURAL SLAB DECK OR FRAMING ABOVE INDEPENDENT OF THE CEILING, CEILING SUPPORT SYSTEM AND OTHER TRADE COMPONENTS. ALL CONDUITS SHALL BE CONCEALED UNLESS OTHERWISE NOTED ON DRAWINGS.
- 11. FIRE RATED SEALS SHALL BE PROVIDED FOR ALL CONDUIT PENETRATIONS THROUGH FIRE RATED FLOORS, WALLS, AND CEILINGS.
- 12. CONTRACTOR SHALL VERIFY ALL EQUIPMENT CONNECTION CONFIGURATIONS BEFORE PURCHASE. ALL DEVICES SHOWN ARE FOR REFERENCE ONLY, TO COMMUNICATE DESIGN INTENT, FINAL LOCATIONS SHALL BE VERIFIED PRIOR TO INSTALLATION. THIS NOTE SHALL APPLY TO, BUT NOT BE LIMITED TO, RECEPTACLES, SWITCHES, DATA PORTS, AUDIO/VIDEO DEVICES, AND TELEPHONE JACKS.
- 13. THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL ABOVE CEILING REQUIREMENTS (PLENUM. NON-PLENUM, AIR HANDLING, ETC.) AS REQUIRED BY LOCAL AUTHORITY BEFORE THE INSTALLATION AND PURCHASE OF ELECTRICAL EQUIPMENT, MATERIALS AND DEVICES, WIRING, CABLING, AND THE ORDERING OF LIGHTING FIXTURES.
- 14. CONDUCTOR SIZES INDICATED ARE MINIMUM SIZES BASED ON 75°C COPPER CONDUCTOR. AMPACITIES OF CONDUCTORS DO NOT TAKE VOLTAGE DROP INTO CONSIDERATION. CONTRACTOR SHALL SIZE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS TO PREVENT A VOLTAGE DROP EXCEEDING 3 PERCENT AT THE FARTHEST OUTLET OF POWER, HEATING, AND LIGHTING LOADS, OR COMBINATION OF SUCH LOADS, AND WHERE THE MAXIMUM TOTAL VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST OUTLET DOES NOT EXCEED 5 PERCENT, TO PROVIDE REASONABLE EFFICIENCY OF OPERATION.

SHEET INDEX

E000 : ELECTRICAL SYMBOLS AND ABBREVIATIONS E100: ELECTRICAL PANEL LOCATION AND DEMOLITION PLANS E101: ELECTRICAL LIGHTING, POWER AND SYSTEMS PLANS E200: ELECTRICAL SCHEDULES

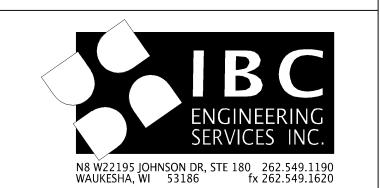
100% CONSTRUCTION DOCUMENTS

E001

CONSULTANTS: ARCHITECT/ENGINEERS: p 262.641.0746 f 888.600.6207 architects N8 W22195 JOHNSON DR, STE 180 262.549.1190 WAUKESHA, WI 53186 fx 262.549.1620

3 4 5

VA FORM 08-623



Drawing Title

ELECTRICAL GENERAL NOTES, LEGENDS AND SCHEDULES Approved: Project Director

Project Title

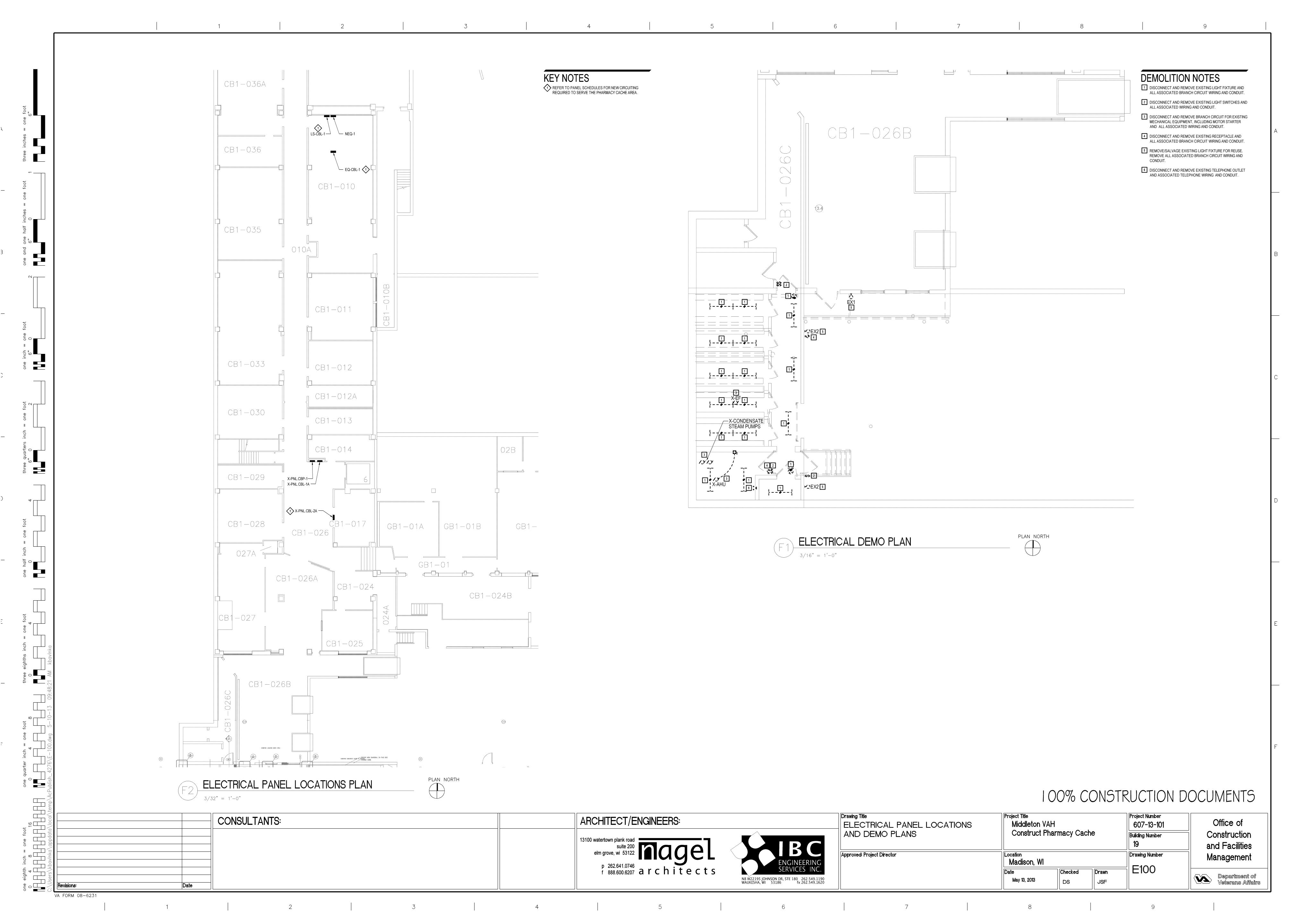
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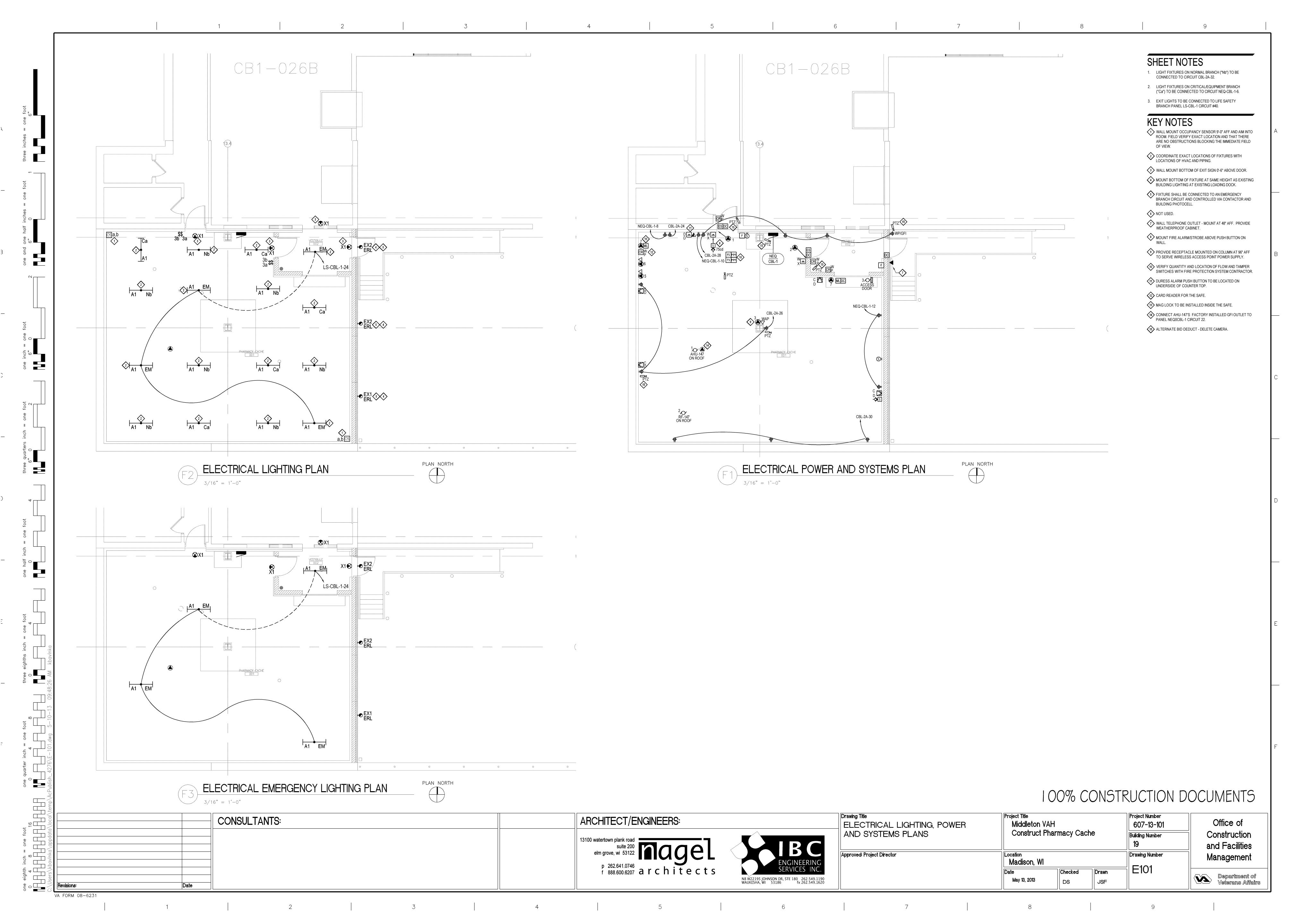
JSF

DS

Office of Construction and Facilities Management

Department of Veterans Affairs





SPECIAL PURPOSE OUTLET SCHEDULE

MARK	TO FEED	LOCATION	KW	FLA	VOLT	PH	FEED F	ROM	BREA	KER		TYPE		SEE
							PANEL	CKT	SIZE	POLE	RECPT	DIRECT	OTHER	NOTE
1	DOOR LOCK POWER SUPPLY	PHARM. CACHE	0.050	0.42	120	1	LS-CBL-1	18	20	1		Х		
2	DOOR LOCK POWER SUPPLY	PHARM. CACHE	0.050	0.42	120	1	LO-CDL-1	10	20	'		Х		
3	WIRELESS ACCESS POINT	PHARM. CACHE	0.015	0.125	120	1	NEQ-CBL-1	14	20	1	Χ			
4	NOT USED	-	-	-	-	-	-	-	_	-	-	-	-	
5	HVAC CONTROL PANEL	PHARM. CACHE	0.5	-	120	1	NEQ-CBL-1	18	15	1		Х		
6	JACE CONTROL PANEL	PHARM. CACHE	0.5	-	120	1	NEQ-CBL-1	20	15	1		Х		
7	MAG LOCK POWER SUPPLY	PHARM. CACHE	0.050	0.42	120	1	NEQ-CBL-1	16	20	1		Х		

MOTOR WIRING SCHEDULE

NO.	DRIVING	LOC.	HP	FLA	VOLT	PH.	FEED	FROM	BRE	AKER		STA	ARTER)			DIS	CONN	ECT		REMARKS
							PANEL	CIRCUIT	SIZE	POLE	TYPE	FURN	INS	WIRED	LOC.	TYPE	FURN	INS	WIRED	LOC.	
1	AIR HANDLING UNIT AHU-147	PHARM. CACHE	1	30 MCA	208	3	NEQ-CBL-1	1,3,5	45	3	MAG	MFR	MFR	MFR	IU	DS	MFR	MFR	MFR	OU	
2	RELIEF FAN RF-1	PHARM. CACHE	1/6	4.4	120	1	NEQ-CBL-1	2	15	1	-	-	-	-	-	DS	MC	EC	EC	NU	
3	ROLL-UP ACCESS DOOR	PHARM. CACHE	0.5	2.5	208	3	NEQ-CBL-1	13,15,17	15	3	MAG/REV	MFR	MFR	MFR	OU	FD	EC	EC	EC	NU	

				LIC	SHTING	FIXTURE S	CHEDU	LE			
			LAMPING								
FIXT.	DESCRIPTION	NO.	TYPE	INPUT	VOLT	MOUNT	CEILING	MANUFACTURER	CATALOG NUMBER	ACCESSORIES	SEE NOTE
A1	4' LED ENCLOSED INDUSTRIAL	-	4170 LUMEN, 4100K	59W	120V	SURFACE	-	LITHONIA	VAP-59W-SYM		5,6
A1	4' FLUORESCENT ENCLOSED INDUSTRIAL	2	32WT8	59W	MVOLT	SURFACE	-	LITHONIA	DMW-2-32WT8-MVOLT-GEBIOPS-STFL-BCD		7
EX1					RELOC	ATED EXISTING EXTERIOR LIG	нт				1
EX2					RELOC	ATED EXISTING EXTERIOR LIG	НТ				1
X1	SINGLE FACED, WALL MOUNTED EXIT SIGN - DAMP LOCATION RATED	-	LED W/ UNIT	1W	120V	SURFACE	VARIES	LITHONIA	LE-S-W-1-R-120277-DL		2,3,4

2 3 5

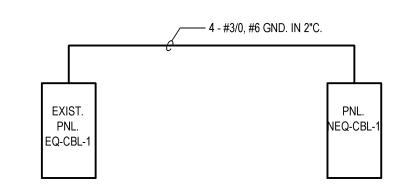
LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

- 1. CONTRACTOR SHALL CONFIRM CEILING TYPE REQUIREMENTS PRIOR TO THE RELEASE OF THE ORDER.
- 2. CATALOG NUMBERS ARE TO PROVIDE GUIDANCE ONLY AND MAY NOT BE COMPLETE.
- 3. FIXTURES SPECIFIED TO MEET DESIGN INTENT.
- 4. PROVIDE ALL EQUIPMENT AND ACCESSORIES NECESSARY FOR A COMPLETE AND FUNCTIONAL INSTALLATION.

LIGHTING FIXTURE SCHEDULE KEY NOTES:

- 1. CLEAN, RELAMP AND REBALLAST FIXTURE PRIOR TO REINSTALLING IN NEW LOCATION. TOUCH UP PAINT IF NECESSARY.
- 2. FIELD SELECTABLE CHEVRONS SHALL BE APPLIED OR INSTALLED/REMOVED AS INDICATED ON PLANS AND AS REQUIRED BY ALL GOVERNING CODES.
- 3. PROVIDE NUMBER OF FACES AS INDICATED ON PLANS AND AS REQUIRED BY ALL GOVERNING CODES.
 4. ALL EXIT SIGNS MUST MEET ALL CITY, STATE, VA STANDARDS AND NATIONAL CODES INCLUDING BUT NOT LIMITED TO IBC 1011 AND ANSI-A117.1 SEC 703.
- 5. VERIFY FIXTURE MOUNT PRIOR TO ORDERING FIXTURES.
- 6 BASE BID
 7 ALTERNATE DEDUCTIVE BID

VA FORM 08-6231



NOTE:

1. REUSE EXISTING 200A/3P SPARE BREAKER IN EXISTING PANEL EQ-CBL-1 TO FEED NEW PANEL NEQ-CBL-1.



- 1)

							PA	NE	LL	S-C	BL	-1 (E	ΕΧΙ	STING)							
	MOUNT	Γ	SPA	CES	L	OCATION	VOLTAGE	PH	WIRE	M	AIN BU	S RATII	NG	MCB	MLO		WIRE			CONDU	IT
	SURFACE		4	12	F	RM. CB1-010	120/208	3	4		22	25A		-	225A		-			-	
POLE	BRE	AKER	(OUTLE	T	DE	SCRIPTION		VA	PHAS	SE LOA	D VA	VA	DE	SCRIPTION		OUTLE	T	BREA	AKER	POLE
NO.	POLE	AMP	LGT	REC	MIS	1				Α	В	С				LGT	REC	MIS	POLE	AMP	NO.
1	1	20				BASEMENT FL.								EM. BASEMENT C	ORR. LT.				1	20	2
3	1	20				BASEMENT FL.								BASEMENT EXIT	LT.				1	20	4
5	1	20				HOSPITAL CLOCI	(S			444				CODE ORANGE N	IENTAL HYGIENE				1	20	6
7	1	20				VISUAL PAGE								JCI CONTROL PI	NL. B2				1	20	8
9	1	20				BLOODBANK								EM. LT. AUDITOR	IUM				1	20	10
11	1	20				REC. B1078 WES	ΓWALL							COMP. FIRE PRO	TECTION				1	20	12
13	1	20				REC. B1078 2 GA	NG (S)							EM. LT. C-010					1	20	14
15	1	20				REC. B1078 2 GA	NG (N)							REC. & LT. N WAL	L C-010				1	20	16
17	1	20				REC. C-036				1666		100	100	PHARMACY CAC	HE DOOR LOCKS			Х	1	20	18
19						-					45454			REC. C-013					1	20	20
21	3	40				A/C C-120								REC. C-013					1	20	22
23						-						236	236	PHARMACY CAC	HE EM. LIGHTS	Х			1	20	24
25	1	20				LT. B-07								TIME CLOCK FIRI	E ALARM				1	20	26
27	1	20				LT. TEL. RM. B-07	'A							LT. PIPE STORAG	ERM.				1	20	28
29	1	20				LT. B-07								LIGHTNING SUPF	RESSOR				1	20	30
31						-								LIGHTNING SUPF	RESSOR				1	20	32
33	3					SPARE								LIGHTNING SUPF	RESSOR				1	20	34
35						-								208 CB1-036AC					2	20	36
37	1	20				SPARE													2	20	38
39	1	20				JOCKEY PUMP C	-035				2		2	PHARMACY CAC	HE EXIT LIGHTS	Х			1	20	40
41	1	20				FIRE ALARM C-03	35							SPARE					1	20	42
							PHASE TOTALS:				2	336		:PHASE	TOTALS						
							TOTAL VA:						338	:ТОТ	AL VA						

ľ	M OUN1	Γ	SPA	CES	LC	CATIO	PAN VOLTAGE	PH	WIRE	M	AIN BU	S RATII		MCB	MLO			WIRE		(CONDU	IT
	FLUSH		4	2	RN	M. CB1-02	6 120/208	3	4		20	00A		200A	-			-			-	
POLE	BRE	AKER	(DUTLE	<u>Г</u>		DESCRIPTION		VA	PHAS	SE LOA	AD VA	VA	DES	SCRIPTION		<u> </u>	DUTLE	Γ	BREA	AKER	POLE
NO.	POLE		LGT	REC	MIS					Α	В	С					.GT	REC	MIS	POLE		NO.
1	1	20	_			P - C016 I	NORTH WALL							RECYCLE ROOM	BATTERY CHARG	ER				1	20	2
3	1	20				P - C016 I	EAST WALL							RECYCLE ROOM	HEATER BLOWER					1	20	4
5	1	20				C016 SPA	RE			77.5				RECYCLE ROOM	POP CAN BOILER					1	20	6
7	1	20				C016 EAS	ST WALL														4-	8
9	1	20				P - C016 I	EAST WALL				65 65 65			A/C ROOM C-025						2	15	10
11	1	20				P - C016 I	EAST WALL															12
13	1	20				P - C016 \	MEST WALL				444			SPARE TO CB1-02	27					3	20	14
15	1	20				P - C016 \	MEST WALL															16
17	1	20				P - C016 \	MEST WALL							BATTERY CHARG	SER CB1-027					1	20	18
19	1	20				SPARE								BATTERY CHARG	SER CB1-027					1	20	20
21	1	20				SPARE								BATTERY CHARG	SER CB1-027					1	20	22
23	1	20				SPARE						900	900	PHARMACY CACH	HE RECEPT REF	RIG.		Х		1	20	24
25	1	20				SPARE				540			540	PHARMACY CACH	HE RECEPTACLES			Х		1	20	26
27	1	20				SPARE					720		720	PHARMACY CACH	HE RECEPTACLES			Х		1	20	28
29	1	20				SPARE						540	540	PHARMACY CACH	HE RECEPTACLES			Х		1	20	30
31	1	20				SPARE				418			418	PHARMACY CACH	HE LIGHTING		Х			1	20	32
33	1	20				SPARE								SPARE						1	20	34
35	1	20				SPARE								SPARE						1	20	36
37	1	20				SPARE								SPARE						1	20	38
39	1	20				SPARE								SPARE						1	20	40
41	1	20				SPARE								SPARE						1	20	42
							PHASE TOTALS:			958	720	1440		:PHASE	TOTALS							
							TOTAL VA:						3,118	:ТОТ:	ΛΙ \/Λ							

							Р	AN	EL	NE	Q-C	BL	-1 (NEW)							
ľ	MOUNT	Γ	SPA	CES	L	OCATION	VOLTAGE	PH	WIRE	M	AIN BU	S RATII	NG T	MCB	MLO		WIRE			CONDU	ЛТ
5	SURFACE	Ξ	4	42	PH	IARM. CACHE	120/208	3	4		22	?5A		200A	-		-			-	
POLE	BRE	AKER		OUTLE	Γ	DE	SCRIPTION	•	VA	PHA	SE LOA	D VA	VA	DE	SCRIPTION	(OUTLE	T	BRE	AKER	POLE
NO.	POLE	AMP	LGT	REC	MIS					Α	В	С				LGT	REC	MIS	POLE	AMP	NO.
1									3122	3650			528	RELIEF FAN RF-1	(MTR. #2)			X	1	15	2
3	3	45			Х	AIR HANDLING U	NIT AHU-1 (M	TR.#1)	3122		3122			SPARE	· · · · · · · · · · · · · · · · · · ·	1			1	20	4
5							•	,	3122			3493	371	PHARMACY CAC	HE LIGHTING	X			1	20	6
7										960			960		HE RECEPT REFRIG.		X		1	20	8
9											180		180		HE RECEPT COMPUTER		X		1	20	10
11									1			360	360	.	HE RECEPTACLES	+	X		1	20	12
13									288	303		000	15		SS POINT (SPO #3)	+	^	X	1	20	14
15	3	15			X		HE COILING DOOR		288	000	388		100		R SUPPLIES (SPO #7)			X	1	20	16
17	O	10				(MTR. #3)			288		000	788	500	HVAC CONTROL	, ,			X	1	15	18
19									200	500		700	500	JACE CONTROL F		+		X	1	15	20
21										300	180		180	ROOF RECEPACE			X		1	20	22
23											100		100	ROOF RECEPACE	<u>.c</u>		_ ^		ı	20	24
									-												
25																					26
27									1							-					28
29																					30
31										(1)											32
33																					34
35 37																					36 38
39																+					40
41																					42
							PHASE TOTALS:			5413	3870	4641			TOTALS						
							TOTAL VA:		10,230				3,694	:TOT	AL VA						

100% CONSTRUCTION DOCUMENTS

Drawing Title
ELECTRICAL SCHEDULES Project Title

Middleton VAH Project Number 607–13–101 CONSULTANTS: ARCHITECT/ENGINEERS: Office of Construct Pharmacy Cache Construction Building Number and Facilities Approved: Project Director Location Madison, WI Drawing Number Management p 262.641.0746 f 888.600.6207 architects E200 Department of Veterans Affairs N8 W22195 JOHNSON DR, STE 180 262.549.1190 WAUKESHA, WI 53186 fx 262.549.1620 DS